ACULUX®

ACULUX LUMINAIRE

Luminaire Type:

Catalog Number (autopopulated):

TC43NR

3" MR16 RECESSED REMODEL ADJUSTABLE/DOWNLIGHT/WALL WASH

MR16 Halogen

TC43NR

PRODUCT SPECIFICATIONS

Cutoff 45° visual cutoff to lamp and lamp image

Trims Style Trim Ring, Self Flanged and Flush Mount Trims utilize torsion spring retention for tight, secure fit to ceiling • Trim ring features beveled knife edge for clean ceiling interface • Self Flanged reflectors with polished or optional white painted flange

Lens Lampholder accommodates up to three (3) 2" captive accessory lenses • Supplied with stippled clear uniformity lens.

Socket Ceramic bi-pin socket with double blade nickel alloy contacts • Quick disconnect for simplified maintenance.

Lamp One 50W MR16 lamp max. (See trim for max. lamp rating)

Adjustability Acu-Aim™ precision geared hot-aiming achieves 370° rotation, 45° tilt • Optimized center lamp beam optics translates lamp forward as it is aimed off nadir, ensuring maximum light and low brightness • Black aiming mechanism with shield prevents visibility into fixture and preserves dark aperture • Shield hinges out of way to facilitate maintenance.

Transformer 120V thermally protected magnetic transformer is servicable from below ceiling • GE LET 75, 120V high efficiency (>95%), high power factor electronic transformer also available.

Dimming May be dimmed using dimmers specifically designed for low voltage magnetic or electronic transformers; consult factory or dimmer manufacturer for additional information.

Codes/Labels UL and cUL listed for direct contact with insulation, through-branch wiring, damp locations (wet location with approved trims) • Product thermally protected • Union made.

Patented (US Patent 7,191,993) " Push-Pull" Cable System Allows rapid installation without tools or loose parts • Template included for accurate ceiling cutout • Housing accommodates ceiling thickness from 3/8" to 2" without altering photometrics • Fits 2 x 6 construction.

Junction Box Rated for 4 No. 12 AWG 90° C through branch circuit conductors and includes (3) ½", and (2) Non-metallic sheathed cable knock-outs • Push-in electrical connectors for field connections.

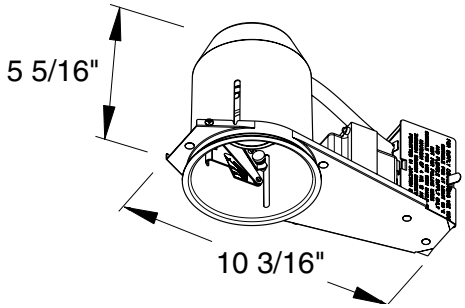
Housing/Mounting Frame Galvanized steel plaster frame. Housing painted black for visually dark interior • Packaged for ease of rapid installation.

Specifications subject to change without notice.



TC43NR

DIMENSIONS



TC43NR

4 7/16" SQUARE CEILING CUTOUT

ORDERING INFORMATION

HOUSING INFO

Example: TC43NR ELV 120 3AC B SF

Series / Housing Style		Transformer		Voltage
TC43NR	3" Aculux Round MR16 Non-IC Remodel	**ELV**	Electronic Low Voltage	**120**
		MLV	Magnetic Low Voltage	

TRIM OPTIONS

Trim Style				Reflector Finish		Flange Style / Finish		Environment	
ADJUSTABLE ACCENT		*DOWNLIGHT*		**BS**	Black Specular	*FLANGED*		**WET** [5]	Wet location
3AC [3]	Angle-Cut Reflector 45°	**3DP** [3]	Parabolic Downlight Trim	**CD**	Clear Diffuse	**SF**	Self Flanged (same finish as reflector)		
3ASLOT [3]	Slot Cut Reflector 45°	**3DBAF** [1]	Baffle Downlight Trim	**CS**	Clear Specular	**WHSF**	Self Flanged, White painted flange		
3AC20 [3]	Shallow Angle-Cut Reflector 20°	**3DBV** [2]	Downlight Bevel	**WTD**	Wheat Diffuse	**BLSF**	Self Flanged, Black painted flange		
3ABAF [1]	Angle-Cut Baffle	**3DPIN** [4]	Downlight Pinhole, 1 1/4"	**B**	Black Paint	**WHR**	White Trim Ring		
3ABV [2]	Adjustable Bevel			**W**	White Paint	**SCR**	Satin Chrome Trim Ring		
3APIN [4]	Adjustable Pinhole, 1 1/4"	*WALL WASH*				**ABZR**	Aged Bronze Trim Ring		
3APINLG [4]	Adjustable Pinhole, 1 3/4"	**3WW** [3]	Lensed Wall Wash						
3AOVAL [2]	Adjustable Slot Pinhole								

NOTES

Ordering Notes

[1] Available with B, W, ABZR, WHR, SCR only.
[2] Available with BS, BLSF, WHSF, BLFM, WHFM only.
[3] Not available with B, BLSF, WHFM, BLFM.
[4] Available with BS, ABZR, BLSF, SCR, WHSF, BLFM, WHFM only.
[5] Available with 3ABV, 3AC, 3APIN, 3DBV, 3DP, 3DPIN only.

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3" MR16 RECESSED REMODEL

ADJUSTABLE/DOWNLIGHT/WALL WASH

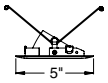
MR16 Halogen

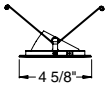
TC43NR

TRIM SELECTION

ADJUSTABLE ACCENT | **MAX. LAMP RATING**

3AC Angle-Cut Reflector, 45° — Aperture : 3 1/4"

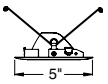





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Trim Ring — Self-Flanged

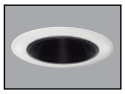
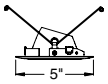
3ASLOT Slot Cut Reflector, 45° — Aperture : 3 1/4"




Trim Ring — Self-Flanged

3AC20 Shallow Angle-Cut Reflector, 20° — Aperture : 3 1/4"



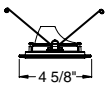

Trim Ring — Self-Flanged

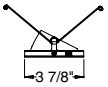
3ABAF Angle-Cut Baffle, 45° — Aperture : 3 1/4"




Trim Ring

3ABV Adjustable Bevel, 45° — Aperture : 1 3/4"

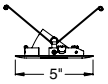



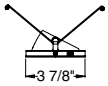


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Trim Ring — Flangeless

3APIN Adjustable Pinhole, 45° — Aperture : 1 1/4"

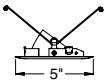



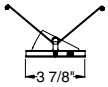


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Trim Ring — Flangeless

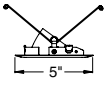
3APINLG Adjustable Pinhole, 1 3/4", 45° — Aperture : 1 3/4"

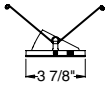



Trim Ring — Flangeless

3AOVAL Adjustable Slot Pinhole, 45° — Aperture : 1 3/4" x 2 1/2"

Trim Ring — Flangeless

Non-IC (TC43NR) : 50W MR16

* With WET option

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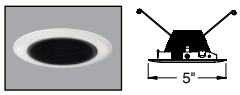
3" MR16 RECESSED REMODEL

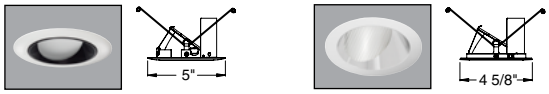
ADJUSTABLE/DOWNLIGHT/WALL WASH

MR16 Halogen

TC43NR

TRIM SELECTION (continued)

DOWNLIGHT	MAX. LAMP RATING
3DP Parabolic Downlight Trim — Aperture : 3 1/4"  Trim Ring — Self-Flanged	
3DBAF Baffle Downlight Trim — Aperture : 3 1/4"  Trim Ring	**Non-IC (TC43NR) :** 50W MR16
3DPIN Downlight Pinhole — Aperture : 1 1/4"  Trim Ring — Flangeless	

WALL WASH	MAX. LAMP RATING
3WW Lensed Wall Wash — Aperture : 3 1/4"  Trim Ring — Self-Flanged	**Non-IC (TC43NR) :** 50W MR16

ACCESSORIES

Cat. #	Description	Cat. #	Description
CGF 200 MPINK	Med. Pink Color Filter	**DGF 200 MAGEN**	Magenta Dichroic Lens
CGF 200 WRED	Warm Red Color Filter	**DGF 200 CYAN**	Blue Green Dichroic Lens
CGF 200 DLTBLUE	Daylight Blue Color Filter	**DCCF 200 HL4250**	Daylight Blue Correction Lens
CGF 200 MBLU	Med. Blue Color Filter	**DIFF 200**	Diffuse Spread Lens
CGF 200 MAMB	Med. Amber Color Filter	**SOLITE 200**	Uniformity Lens
CGF 200 MGRN	Med. Green Color Filter	**UVF 200**	UV Filter Lens
DGF 200 DRED	Red Dichroic Lens	**PRISM 200**	Prismatic Lens
DGF 200 MGRN	Med. Green Dichroic Lens	**LSPREAD 200**	Linear Spread Lens
DGF 200 MBLU	Med. Blue Dichroic Lens	**HCLBL 200**	Hexcell Louver
DGF 200 DYEL	Yellow Dichroic Lens		

To order, specify catalog number.

* With WET option

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3" MR16 RECESSED REMODEL

ADJUSTABLE TRIMS

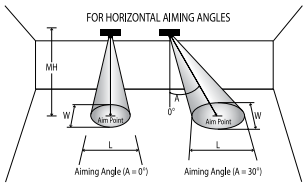
MR16 Halogen

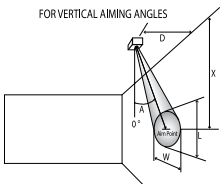
TC43NR

PHOTOMETRICS

CBCP • Centerbeam candlepower
FC • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30˚, 1.0 for 45˚).





Horizontal Aiming Angles



Vertical Aiming Angles



Lamp	Beam Type	Beam Spread°	Rated Life	CBCP	0° MH	0° FC	0° L	0° W	30° FC	30° L	30° W	30° D	30° FC	30° X	30° L	30° W
35W MR16 Halogen	NSP	**10°**	4000	9100	6	253	1.0	1.0	164	1.4	1.2	3	126	5.2	2.1	1.0
					8	142	1.4	1.4	92	1.9	1.6	4	71	6.9	2.9	1.4
					10	91	1.7	1.7	59	2.3	2.0	5	46	8.7	3.6	1.7
					12	63	2.1	2.1	41	2.8	2.4	6	32	10.4	4.3	2.1
					14	46	2.4	2.4	30	3.3	2.8	7	23	12.1	5.0	2.4
	FL	**35°**	4000	1500	4	94	2.5	2.5	61	3.5	2.9	2	47	3.5	7.2	2.5
					6	42	3.8	3.8	27	5.2	4.4	3	21	5.2	10.8	3.8
					8	23	5.0	5.0	15	7.0	5.8	4	12	6.9	14.4	5.0
					10	15	6.3	6.3	10	8.7	7.3	5	8	8.7	18.0	6.3
					12	10	7.6	7.6	7	10.4	8.7	6	5	10.4	21.6	7.6
37W MR16 Halogen IR	NSP	**10°**	5000	12500	6	347	1.0	1.0	226	1.4	1.2	3	174	5.2	2.1	1.0
					8	195	1.4	1.4	127	1.9	1.6	4	98	6.9	2.9	1.4
					10	125	1.7	1.7	81	2.3	2.0	5	63	8.7	3.6	1.7
					12	87	2.1	2.1	56	2.8	2.4	6	43	10.4	4.3	2.1
					14	64	2.4	2.4	41	3.3	2.8	7	32	12.1	5.0	2.4
	NFL	**25°**	5000	4400	4	275	1.8	1.8	179	2.4	2.0	2	138	3.5	4.2	1.8
					6	122	2.7	2.7	79	3.6	3.1	3	61	5.2	6.2	2.7
					8	69	3.5	3.5	45	4.8	4.1	4	34	6.9	8.3	3.5
					10	44	4.4	4.4	29	6.0	5.1	5	22	8.7	10.4	4.4
					12	31	5.3	5.3	20	7.2	6.1	6	15	10.4	12.5	5.3
	FL	**35°**	5000	2200	3	244	1.9	1.9	159	2.6	2.2	2	69	3.5	7.2	2.5
					4	138	2.5	2.5	89	3.5	2.9	3	31	5.2	10.8	3.8
					6	61	3.8	3.8	40	5.2	4.4	4	17	6.9	14.4	5.0
					8	34	5.0	5.0	22	7.0	5.8	5	11	8.7	18.0	6.3
					10	22	6.3	6.3	14	8.7	7.3	6	8	10.4	21.6	7.6
42W MR16 Halogen	VNSP	**9°**	3500	12300	8	192	1.3	1.3	125	1.7	1.5	4	96	6.9	2.6	1.3
					10	123	1.6	1.6	80	2.1	1.8	5	62	8.7	3.2	1.6
					12	85	1.9	1.9	55	2.5	2.2	6	43	10.4	3.8	1.9
					14	63	2.2	2.2	41	2.9	2.5	7	31	12.1	4.5	2.2
					16	48	2.5	2.5	31	3.4	2.9	8	24	13.9	5.1	2.5
50W MR16 Halogen	NSP	**15°**	6000	9100	6	253	1.6	1.6	164	2.1	1.8	3	126	5.2	3.3	1.6
					8	142	2.1	2.1	92	2.8	2.4	4	71	6.9	4.4	2.1
					10	91	2.6	2.6	59	3.5	3.0	5	46	8.7	5.6	2.6
					12	63	3.2	3.2	41	4.2	3.6	6	32	10.4	6.7	3.2
					14	46	3.7	3.7	30	4.9	4.3	7	23	12.1	7.8	3.7
	NFL	**25°**	6000	3200	4	200	1.8	1.8	130	2.4	2.0	2	100	3.5	4.2	1.8
					6	89	2.7	2.7	58	3.6	3.1	3	44	5.2	6.2	2.7
					8	50	3.5	3.5	32	4.8	4.1	4	25	6.9	8.3	3.5
					10	32	4.4	4.4	21	6.0	5.1	5	16	8.7	10.4	4.4
					12	22	5.3	5.3	14	7.2	6.1	6	11	10.4	12.5	5.3
	FL	**40°**	6000	1700	3	189	2.2	2.2	123	3.0	2.5	2	53	3.5	9.7	2.9
					4	106	2.9	2.9	69	4.1	3.4	3	24	5.2	14.5	4.4
					6	47	4.4	4.4	31	6.1	5.0	4	13	6.9	19.3	5.8
					8	27	5.8	5.8	17	8.1	6.7	5	9	8.7	24.2	7.3
					10	17	7.3	7.3	11	10.2	8.4	6	6	10.4	**	8.7

The beam spread in degrees and the beam "L" and "W" in the following tables are computed at 50% of centerbeam candlepower and represent areas of "effective illumination."

**Due to steep aiming angle, length of beam extends beyond 25'. Each angle is measured from 0˚ vertical.

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3DP **Parabolic Downlight Trim** **Aperture : 3 1/4"**



Trim Ring



Self-Flanged

3" MR16 RECESSED REMODEL DOWNLIGHT

MR16 Halogen

TC43NR with 3DP Trim

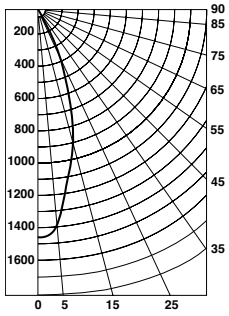
PHOTOMETRICS

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DP CS WHR
Test Number: PT12090905
Total Luminaire Efficiency: 73.0%
Luminaire Spacing Criteria: 0.58
Luminaire: Clear specular downlight trim. Open aperture.
Lamps: One Q50MR16C/FL40, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	41.0	17.6	3.9′
7′	30.1	12.9	4.6′
8′	23.0	9.9	5.2′
9′	18.2	7.8	5.9′
10′	14.7	6.3	6.6′
11′	12.2	5.2	7.2′
12′	10.2	4.4	7.9′
13′	8.7	3.8	8.5′
14′	7.5	3.2	9.2′
15′	6.6	2.8	9.8′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	1475	
5°	1410	135
15°	891	253
25°	346	160
35°	54	34
45°	4	3
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	238	816
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	547	68.4	93.7
0-40°	581	72.6	99.5
0-60°	584	73.0	100.0
0-90°	584	73.0	100.0
90-180°	0	0.0	0.0
0-180°	584	73.0	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	41	37	34
5′ x 5′	26	24	21
6′ x 6′	18	16	15
7′ x 7′	15	13	12
8′ x 8′	12	11	10
9′ x 9′	9	8	7
10′ x 10′	7	6	5
12′ x 12′	5	4	4

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)
Effective Floor Reflectance 20%

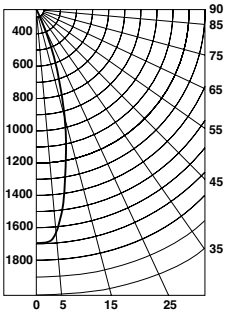
PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	74	74	74	73
1	84	82	80	79	82	80	79	78	78	76	75	75	74	73	72	72	71	70
2	81	78	75	73	79	76	74	72	74	72	71	72	71	69	70	69	68	67
3	78	74	71	69	76	73	70	68	71	69	67	69	68	66	68	66	65	64
4	75	70	67	65	74	70	67	64	68	66	64	67	65	63	66	64	62	61
5	72	67	64	62	71	67	64	61	65	63	61	64	62	60	63	61	60	59
6	70	64	61	59	69	64	61	58	63	60	58	62	60	58	61	59	57	56
7	67	62	58	56	66	61	58	56	61	58	56	60	57	55	59	57	55	54
8	65	59	56	54	64	59	56	54	58	55	53	58	55	53	57	55	53	52
9	63	57	54	52	62	57	54	52	56	53	51	56	53	51	55	53	51	50
10	61	55	52	50	60	55	52	50	54	51	49	54	51	49	53	51	49	48

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DP CS WHR
Test Number: PT12090803
Total Luminaire Efficiency: 69.3%
Luminaire Spacing Criteria: 0.54
Luminaire: Clear specular Alzak® downlight trim. Open aperture.
Lamps: One 37MR16/IR/FL35/C, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	47.2	20.8	3.6′
7′	34.7	15.3	4.2′
8′	26.5	11.7	4.7′
9′	21.0	9.3	5.3′
10′	17.0	7.5	5.9′
11′	14.0	6.2	6.5′
12′	11.8	5.2	7.1′
13′	10.1	4.4	7.7′
14′	8.7	3.8	8.3′
15′	7.6	3.3	8.9′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	1699	
5°	1649	157
15°	957	271
25°	232	107
35°	28	18
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	0	0
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	536	67.0	96.8
0-40°	554	69.3	100.0
0-60°	554	69.3	100.0
0-90°	554	69.3	100.0
90-180°	0	0.0	0.0
0-180°	554	69.3	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	39	36	33
5′ x 5′	25	23	21
6′ x 6′	17	16	15
7′ x 7′	14	13	12
8′ x 8′	11	10	9
9′ x 9′	8	8	7
10′ x 10′	6	6	5
12′ x 12′	4	4	4

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)
Effective Floor Reflectance 20%

PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	82	82	82	82	81	81	81	81	77	77	77	74	74	74	71	71	71	69
1	80	78	77	76	78	77	75	74	74	73	72	71	71	70	69	68	68	67
2	77	74	72	70	75	73	71	70	71	70	68	69	68	67	67	66	65	64
3	74	71	69	66	73	70	68	66	68	67	65	67	65	64	65	64	63	62
4	72	68	65	63	71	67	65	63	66	64	62	65	63	61	64	62	61	60
5	70	66	63	60	69	65	62	60	64	61	60	63	61	59	62	60	59	58
6	68	63	60	58	67	63	60	58	62	59	57	61	59	57	60	58	57	56
7	66	61	58	56	65	60	58	56	60	57	55	59	57	55	58	56	55	54
8	64	59	56	54	63	59	56	54	58	55	54	57	55	53	57	55	53	52
9	62	57	54	52	61	57	54	52	56	54	52	56	53	52	55	53	52	51
10	60	55	52	50	59	55	52	50	54	52	50	54	52	50	54	51	50	49

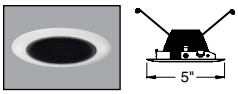
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3" MR16 RECESSED REMODEL DOWNLIGHT

MR16 Halogen

TC43NR with 3DBAF Trim

3DBAF **Baffle Downlight Trim** **Aperture : 3 1/4"**



Trim Ring

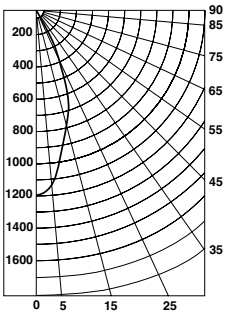
PHOTOMETRICS

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DBAF W WHR
Test Number: PT12090908
Total Luminaire Efficiency: 69.6%
Luminaire Spacing Criteria: 0.62
Luminaire: White Baffle Trim. Open Aperture.
Lamps: One Q50MR16C/FL40, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	33.3	13.8	4.4′
7′	24.4	10.1	5.1′
8′	18.7	7.7	5.9′
9′	14.8	6.1	6.6′
10′	12.0	5.0	7.3′
11′	9.9	4.1	8.1′
12′	8.3	3.4	8.8′
13′	7.1	2.9	9.5′
14′	6.1	2.5	10.3′
15′	5.3	2.2	11.0′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	1198	
5°	1142	109
15°	774	219
25°	367	170
35°	59	37
45°	11	9
55°	6	6
65°	4	4
75°	3	3
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	750	2570
55	522	1789
65	477	1635
75	520	1781
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	498	62.3	89.5
0-40°	535	66.9	96.1
0-60°	550	68.7	98.7
0-90°	557	69.6	100.0
90-180°	0	0.0	0.0
0-180°	557	69.6	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	39	35	31
5′ x 5′	25	22	20
6′ x 6′	17	15	14
7′ x 7′	14	12	11
8′ x 8′	11	10	9
9′ x 9′	8	8	7
10′ x 10′	6	6	5
12′ x 12′	4	4	3

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)
Effective Floor Reflectance 20%

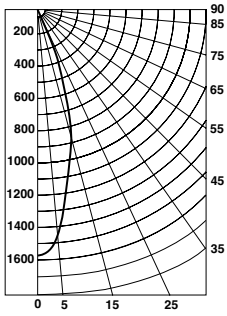
PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	83	83	83	83	81	81	81	81	77	77	77	74	74	74	71	71	71	70
1	79	78	76	75	78	76	75	74	73	72	71	71	70	69	69	68	67	66
2	76	73	71	69	75	72	70	68	70	68	66	68	66	65	66	65	64	63
3	73	69	66	64	72	68	66	63	66	64	62	65	63	61	63	62	60	59
4	70	66	62	60	69	65	62	59	63	61	59	62	60	58	61	59	57	57
5	67	62	59	56	66	62	59	56	61	58	56	60	57	55	58	56	55	54
6	65	60	56	53	64	59	56	53	58	55	53	57	55	53	56	54	52	51
7	62	57	53	51	61	56	53	51	56	53	50	55	52	50	54	52	50	49
8	60	54	51	48	59	54	51	48	53	50	48	53	50	48	52	50	48	47
9	58	52	49	46	57	52	49	46	51	48	46	51	48	46	50	48	46	45
10	56	50	47	44	55	50	47	44	49	46	44	49	46	44	48	46	44	43

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DBAF B WHR
Test Number: PT12090802
Total Luminaire Efficiency: 62.0%
Luminaire Spacing Criteria: 0.53
Luminaire: Black Baffle Trim. Open Aperture.
Lamps: One 37MR16/IR/FL35/C, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	43.1	19.0	3.5′
7′	31.7	14.0	4.1′
8′	24.3	10.7	4.7′
9′	19.2	8.5	5.3′
10′	15.5	6.9	5.9′
11′	12.8	5.7	6.5′
12′	10.8	4.8	7.0′
13′	9.2	4.1	7.6′
14′	7.9	3.5	8.2′
15′	6.9	3.0	8.8′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	1552	
5°	1432	137
15°	852	241
25°	218	101
35°	28	17
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	0	0
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	479	59.9	96.5
0-40°	496	62.0	100.0
0-60°	496	62.0	100.0
0-90°	496	62.0	100.0
90-180°	0	0.0	0.0
0-180°	496	62.0	100.0

AVERAGE INITIAL FOOTCANDLES
Reflectances: 80% Ceiling, 50% Walls, 20% Floors

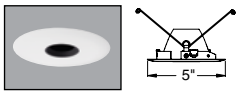
Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	35	32	29
5′ x 5′	22	20	19
6′ x 6′	16	14	13
7′ x 7′	13	12	10
8′ x 8′	10	9	8
9′ x 9′	8	7	6
10′ x 10′	6	5	5
12′ x 12′	4	4	3

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)
Effective Floor Reflectance 20%

PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	74	74	74	74	72	72	72	72	69	69	69	66	66	66	63	63	63	62
1	71	70	69	68	70	69	68	67	66	65	65	64	63	63	62	61	61	60
2	69	67	65	63	68	65	64	62	64	62	61	62	61	60	60	59	58	58
3	67	64	61	59	65	63	61	59	61	59	58	60	58	57	58	57	56	55
4	64	61	58	56	63	60	58	56	59	57	55	58	56	55	57	55	54	54
5	62	58	56	54	61	58	56	54	57	55	53	56	54	53	55	54	52	52
6	60	56	54	52	60	56	53	52	55	53	51	54	52	51	54	52	51	50
7	58	54	52	50	58	54	51	50	53	51	49	53	51	49	52	50	49	48
8	57	52	50	48	56	52	50	48	52	49	48	51	49	47	50	49	47	47
9	55	51	48	46	55	50	48	46	50	48	46	49	47	46	49	47	46	45
10	53	49	47	45	53	49	46	45	48	46	45	48	46	45	48	46	44	44

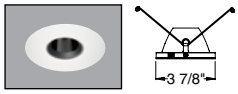
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3DPIN Downlight Pinhole



Trim Ring

Aperture : 1 1/4"



Flangeless

3" MR16 RECESSED REMODEL DOWNLIGHT

MR16 Halogen

TC43NR with 3DPIN Trim

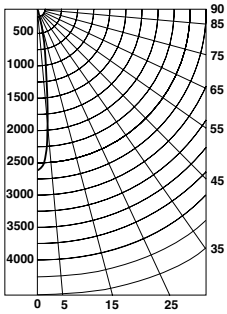
PHOTOMETRICS

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DPIN BS WHSF
Test Number: PT12091001
Total Luminaire Efficiency: 38.2%
Luminaire Spacing Criteria: 0.32
Luminaire: 1 1/4" Pinhole Trim. Open Aperture
Lamps: One 37MR16/IR/SP10/C, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	71.7	34.9	1.6′
7′	52.7	25.7	1.9′
8′	40.3	19.6	2.1′
9′	31.9	15.5	2.4′
10′	25.8	12.6	2.7′
11′	21.3	10.4	2.9′
12′	17.9	8.7	3.2′
13′	15.3	7.4	3.5′
14′	13.2	6.4	3.7′
15′	11.5	5.6	4.0′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	2581	
5°	2011	192
15°	376	107
25°	15	7
35°	0	0
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	0	0
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	305	38.2	100.0
0-40°	305	38.2	100.0
0-60°	305	38.2	100.0
0-90°	305	38.2	100.0
90-180°	0	0.0	0.0
0-180°	305	38.2	100.0

AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	22	21	20
5′ x 5′	14	13	12
6′ x 6′	10	9	9
7′ x 7′	8	7	7
8′ x 8′	6	6	6
9′ x 9′	5	4	4
10′ x 10′	4	3	3
12′ x 12′	2	2	2

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)

Effective Floor Reflectance 20%

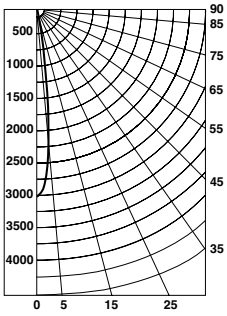
PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	45	45	45	45	44	44	44	44	42	42	42	41	41	41	39	39	39	38
1	44	44	43	42	43	43	42	42	41	41	41	40	40	39	39	38	38	38
2	43	42	41	40	42	41	41	40	40	40	39	39	39	38	38	38	38	37
3	42	41	40	39	42	40	39	39	39	39	38	39	38	37	38	37	37	36
4	41	40	39	38	41	39	38	38	39	38	37	38	37	37	37	37	36	36
5	41	39	38	37	40	39	38	37	38	37	36	38	37	36	37	36	36	36
6	40	38	37	36	40	38	37	36	37	36	36	37	36	36	37	36	35	35
7	39	37	36	35	39	37	36	35	37	36	35	37	36	35	36	35	35	35
8	39	37	36	35	38	37	36	35	36	35	35	36	35	35	36	35	34	34
9	38	36	35	34	38	36	35	34	36	35	34	36	35	34	35	35	34	34
10	38	36	35	34	37	36	35	34	35	34	34	35	34	34	35	34	34	33

PHOTOMETRIC REPORT

Catalog Number: TC43NR 3DPIN BS WHSF
Test Number: PT12091005
Total Luminaire Efficiency: 33.8%
Luminaire Spacing Criteria: 0.29
Luminaire: 1 1/4" Pinhole Trim. Open Aperture
Lamps: One Q50MR16C/NSP15, rated at 800 total lumens.

Initial Footcandles

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Footcandles Beam Edge	Beam Diameter
6′	83.4	40.9	1.4′
7′	61.3	30.0	1.6′
8′	46.9	23.0	1.9′
9′	37.1	18.2	2.1′
10′	30.0	14.7	2.3′
11′	24.8	12.2	2.6′
12′	20.9	10.2	2.8′
13′	17.8	8.7	3.0′
14′	15.3	7.5	3.3′
15′	13.3	6.5	3.5′



Candlepower Distribution
(Candelas)

Angle	Candela	Lumens
0°	3004	
5°	2151	205
15°	200	57
25°	17	8
35°	0	0
45°	0	0
55°	0	0
65°	0	0
75°	0	0
85°	0	0

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	0	0
55	0	0
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	270	33.8	100.0
0-40°	270	33.8	100.0
0-60°	270	33.8	100.0
0-90°	270	33.8	100.0
90-180°	0	0.0	0.0
0-180°	270	33.8	100.0

AVERAGE INITIAL FOOTCANDLES

Reflectances: 80% Ceiling, 50% Walls, 20% Floors

Luminaire Spacing	Room Cavity Ratio RCR1	RCR3	RCR5
4′ x 4′	20	19	18
5′ x 5′	12	12	11
6′ x 6′	9	8	8
7′ x 7′	7	7	6
8′ x 8′	6	5	5
9′ x 9′	4	4	4
10′ x 10′	3	3	3
12′ x 12′	2	2	2

COEFFICIENTS OF UTILIZATION – % (Zonal Cavity Method)

Effective Floor Reflectance 20%

PCC	80				70				50			30			10			0
PW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	40	40	40	40	39	39	39	39	38	38	38	36	36	36	34	34	34	34
1	39	39	38	38	38	38	38	37	37	36	36	35	35	35	34	34	34	33
2	38	37	37	36	38	37	36	36	36	35	35	35	35	34	34	34	34	33
3	38	37	36	35	37	36	35	35	35	35	34	35	34	34	34	33	33	33
4	37	36	35	34	37	35	35	34	35	34	33	34	34	33	34	33	33	32
5	36	35	34	33	36	35	34	33	34	34	33	34	33	33	33	33	32	32
6	36	34	34	33	36	34	33	33	34	33	33	33	33	32	33	33	32	32
7	35	34	33	32	35	34	33	32	33	33	32	33	33	32	33	32	32	32
8	35	34	33	32	35	33	33	32	33	32	32	33	32	32	33	32	32	31
9	35	33	32	32	34	33	32	32	33	32	32	33	32	31	32	32	31	31
10	34	33	32	31	34	33	32	31	32	32	31	32	32	31	32	32	31	31

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3″ MR16 RECESSED REMODEL DOWNLIGHT

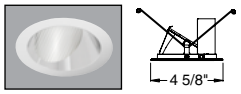
MR16 Halogen

TC43NR with 3WW Trim

3WW **Lensed Wall Wash** **Aperture " 3 1/4"**



Trim Ring



Self-Flanged

PHOTOMETRICS

PHOTOMETRIC REPORT

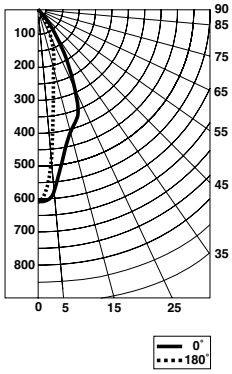
Catalog Number: TC43NR 3WW CS WHR
Test Number: PT03101003
Total Luminaire Efficiency: 63.8%
Luminaire Spacing Criteria: 1.06
Luminaire: Haze finish, lensed angle cut trim.
Lamps: One 37MR/IR/FL35/C, rated at 800 total lumens.

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	4129	14148
55	1212	4153
65	0	0
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	334	41.7	65.4
0-40°	426	53.3	83.5
0-60°	502	62.8	98.5
0-90°	510	63.8	100.0
90-180°	0	0.0	0.0
0-180°	510	63.8	100.0



Candlepower Distribution (Candelas)

Degrees Vertical	0° Wall Wash	180° Downlight
0°	603	603
5°	582	481
15°	414	207
25°	281	129
35°	112	41
45°	62	16
55°	15	0
65°	0	0
75°	0	0
85°	0	0

Footcandles on Wall from Multiple Fixtures

Fixture Distance to Wall		18″						24″					
Fixture Centers (spacing)		18″			24″			18″			24″		
DISTANCE FROM CEILING	1′	18	12	18	16	7	16	7	6	7	6	4	6
	2′	38	39	38	31	24	31	25	24	25	20	17	20
	3′	37	35	37	30	25	30	28	30	28	22	23	22
	4′	30	27	30	22	21	22	28	26	28	21	20	21
	5′	21	20	21	16	15	16	24	22	24	18	17	18
	6′	15	15	15	11	11	11	19	19	19	14	14	14
	7′	11	11	11	8	8	8	14	15	14	11	11	11
	8′	9	9	9	7	6	7	11	11	11	9	8	9
	9′	7	7	7	5	5	5	9	9	9	7	7	7

*Multipliers: 42W MR16 - 0.86, 35W MR16 - 0.72, 20W MR16 - 0.38, Black - 0.7, Diffuse - 0.95

*Note: Mulitipliers are provided for estimating purposes only. Use IES photometric files for precise photometric information.

PHOTOMETRIC REPORT

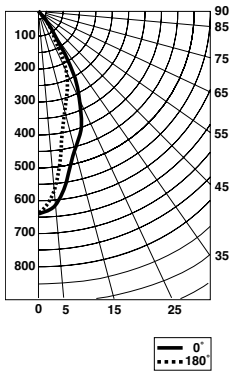
Catalog Number: TC43NR 3WW CS WHR
Test Number: PT03101101
Total Luminaire Efficiency: 64.9%
Luminaire Spacing Criteria: 0.92
Luminaire: Haze finish, lensed angle cut trim.
Lamps: One 50MR16C/FL40, rated at 800 total lumens.

Luminance Data

Ang in Deg	Footlamberts	Candela/M²
45	5005	17148
55	1003	3436
65	237	812
75	0	0
85	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30°	342	42.8	65.9
0-40°	431	53.8	82.9
0-60°	508	63.5	82.9
0-90°	519	64.9	100.0
90-180°	0	0.0	0.0
0-180°	519	64.9	100.0



Candlepower Distribution (Candelas)

Degrees Vertical	0° Wall Wash	180° Downlight
0°	645	645
5°	635	588
15°	462	331
25°	311	224
35°	136	80
45°	75	27
55°	12	0
65°	2	0
75°	0	0
85°	0	0

Footcandles on Wall from Multiple Fixtures

Fixture Distance to Wall		18″						24″					
Fixture Centers (spacing)		18″			24″			18″			24″		
DISTANCE FROM CEILING	1′	19	14	19	17	9	17	10	8	10	8	6	8
	2′	29	27	29	23	19	23	21	20	21	16	15	16
	3′	28	27	28	23	19	23	21	21	21	17	15	17
	4′	24	23	24	18	17	18	21	21	21	16	16	16
	5′	18	17	18	13	13	13	19	18	19	14	14	14
	6′	13	13	13	10	9	10	16	15	16	12	11	12
	7′	10	10	10	7	7	7	12	12	12	9	9	9
	8′	7	8	7	6	6	6	10	10	10	7	7	7
	9′	6	6	6	5	5	5	8	8	8	6	6	6

*Multipliers: 42W MR16 - 0.86, 35W MR16 - 0.72, 20W MR16 - 0.38, Black - 0.7, Diffuse - 0.95

*Note: Mulitipliers are provided for estimating purposes only. Use IES photometric files for precise photometric information.

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