

DATE:	PROJECT:
TYPE:	NOTES:
CATALOG #:	

## FIRE-RATED CANLESS DOWNLIGHTS

### 5 CCT COLOR PREFERENCE®

### J-BOX MOUNT RECESSED DOWNLIGHT

#### KEY FEATURES

- Fire resistant—withstands temperatures up to 1100°C for up to 2 hours.
- Luminaire uses ETi SSL's patented Color Preference with 5 Selectable CCTs (2700K, 3000K, 3500K, 4000K, 5000K)
- 90+ CRI (JA8 Title 24 Compliant)
- IC Rated for maximum thermal management
- Triac dimming down to 10%—quiet and flickering free
- Wet location

#### SPECIFICATIONS

##### Construction

- Steel back housing—trim and housing are integrated and have a .04" surface profile
- Suitable for IC or Non-IC applications
- Matte white finish

##### Optics

- High impact, frosted polycarbonate diffuser lens for zero pixelation and overall visual comfort
- Edge-lit LEDs produce uniform even light distribution

##### Installation

- Two low-profile spring retention clips for a secure fit—no need for a separate recessed housing or junction box
- Easy to installed and service from below the mounting/ceiling surface
- Minimum 2" plenum space required to install the remote driver box
- Field select one of five CCTs at installation with an integral switch accessible on J-Box. Factory set to 2700K.

##### Electrical

- Quick wire connectors are included
- >72,000 hour LEDs at L70, lumen maintenance 85.29%
- Operating Temperature: -20°C (-4°F) / 40°C (104°F)
- 120V, 60Hz
- Triac dimming, down to 10%\*
- ETi's patented 5 CCT COLOR PREFERENCE® allowing for easy field-adjustable color temperature selection with switch located on J-Box

\* Always consult dimmer manufacturer for proper use, installation and compatibility (some dimmers may require a neutral in the wall box).

##### Warranty

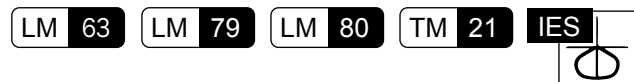
5-Year Standard Warranty. See terms at: [ETISSL.com/warranty/](https://ETISSL.com/warranty/)

KEY DATA	
Lumen Range	530 – 1924
Wattage Range (nom.)	6.14 – 18
Efficacy Range (LPW)	82 – 109
Reported Life (Hours)	L70 / >72,000



#### Certifications & Test Data

- 2 Hour Fire Rating | Tested to comply with UL 263/ASTM E119/CAN-ULC-S101-07
- Plenum rated, FT4 listed cable
- cUS ETL Rated, Wet Location
- Air Tight certified in accordance with ASTM E283-2004
- Adheres to LM63, LM79, LM80 and TM21 industry standards for photometric, lumen maintenance and lifetime calculations
- ENERGY STAR® rated (See Page 2 for search info.)
- Product can be used to comply with California Title 24 Efficiency Standards
- JA8 Title 24 Compliant
- TAA Compliant
- IC Rated for direct contact with insulation



# Fire-Rated Canless Downlights 5 CCT COLOR PREFERENCE® | J-BOX MOUNT RECESSED DOWNLIGHT

## CATALOG LOGIC

<b>FRCDL</b>	-		-	<b>9</b>	-	<b>CP5</b>	-	<b>SV</b>	-	<b>TD</b>	
Series	Size	Lumens (Lumen Pkg)	CRI	CCT	Voltage	Dimming					
<b>FRCDL</b> Fire-Rated Canless Downlights	<b>3IN</b> (3" Dia) <b>4IN</b> (4" Dia) <b>6IN</b> (6" Dia) <b>8IN</b> (8" Dia)	<b>500LM</b> <b>800LM</b> <b>1200LM</b> <b>1600LM</b>	<b>9</b> 90CRI (min.)	<b>CP5</b> 5 CCT Color Preference® 27/3/35/4/5000K	<b>SV</b> Single-Volt 120V	<b>TD</b> TRIAC Dimming					

### Notes:

1. This product is not configurable, only designated 'Stock' SKUs are available. Lumens correspond to 3IN-8IN sizes
2. Factory set at 2700K. Installing contractor responsible for ensuring desired CCT is selected during installation.

## STOCK ORDERING INFORMATION

Catalog Part Number	Order Number	Description (Dia)	Case QTY	CRI	Watts (Nom.)	Lumen Pkg <sup>1</sup>	CCT (5CP)	Delivered Lumens	LPW	Volt.	Dim	ENERGY STAR®
FRCDL-3IN-500LM-9-CP5-SV-TD	63312101	3" Fired-Rated Canless Downlight	6	90+	6.5	500	2700K	530	85	120V	TRIAC	Yes
							3000K	548	88			
							3500K	564	92			
							4000K	568	92			
							5000K	555	89			
FRCDL-4IN-800LM-9-CP5-SV-TD	63309101	4" Fired-Rated Canless Downlight	6	90+	10	800	2700K	812	82	120V	TRIAC	Yes
							3000K	870	89			
							3500K	918	96			
							4000K	919	95			
							5000K	867	89			
FRCDL-6IN-1200LM-9-CP5-SV-TD	63310101	6" Fired-Rated Canless Downlight	6	90+	14	1200	2700K	1215	93	120V	TRIAC	Yes
							3000K	1258	97			
							3500K	1310	102			
							4000K	1313	102			
							5000K	1254	96			
FRCDL-8IN-1600LM-9-CP5-SV-TD	63313101	8" Fired-Rated Canless Downlight	6	90+	19	1600	2700K	1746	97	120V	TRIAC	Yes
							3000K	1814	101			
							3500K	1909	108			
							4000K	1924	109			
							5000K	1839	102			

Notes: 1. For more delivered lumens and test data see pages 3-4, or visit ETISSL.com

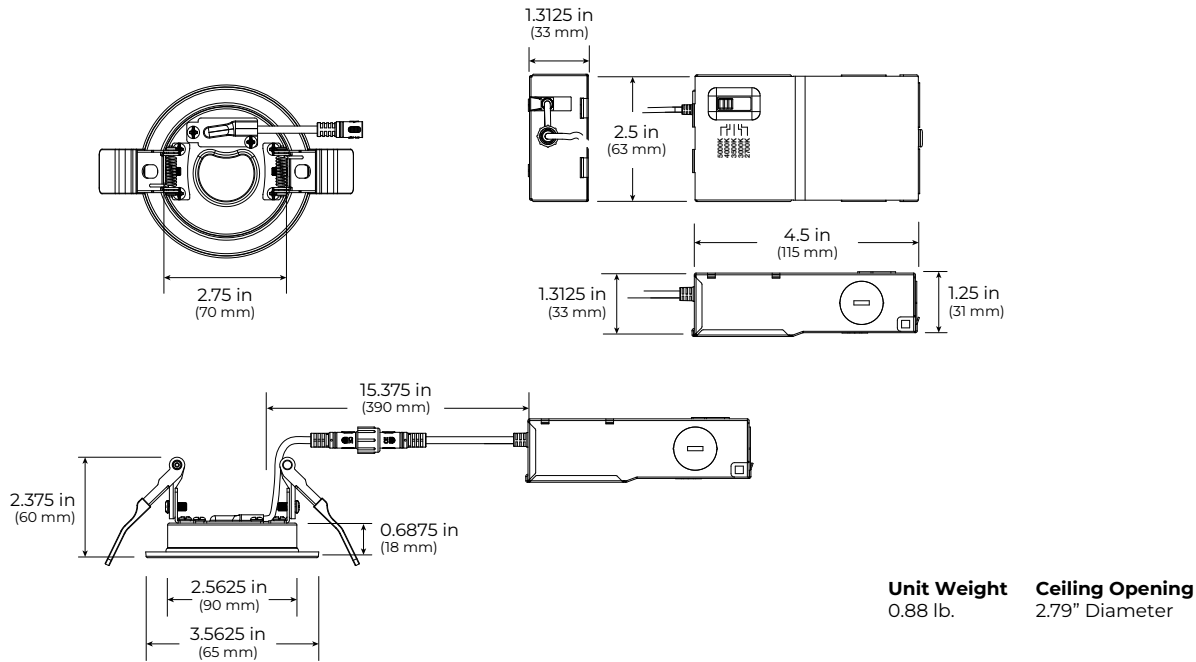
## AVAILABLE STOCK ACCESSORIES (must be ordered separately, field installed)

Catalog Part Number	Order Number	Description	Details
LPGP-3IN	70306101	3in Rough-in Guide Plate (new construction)	
LPGP-4IN	70307101	4in Rough-in Guide Plate (new construction)	
LPGP-6IN	70313101	6in Rough-in Guide Plate (new construction)	
FRCDL-12FT-EXTENCORD	70232101	12ft Fire-Rated Extension Cable	3-Pin
FRCDL-20FT-EXTENCORD	70233101	20ft Fire-Rated Extension Cable	3-Pin

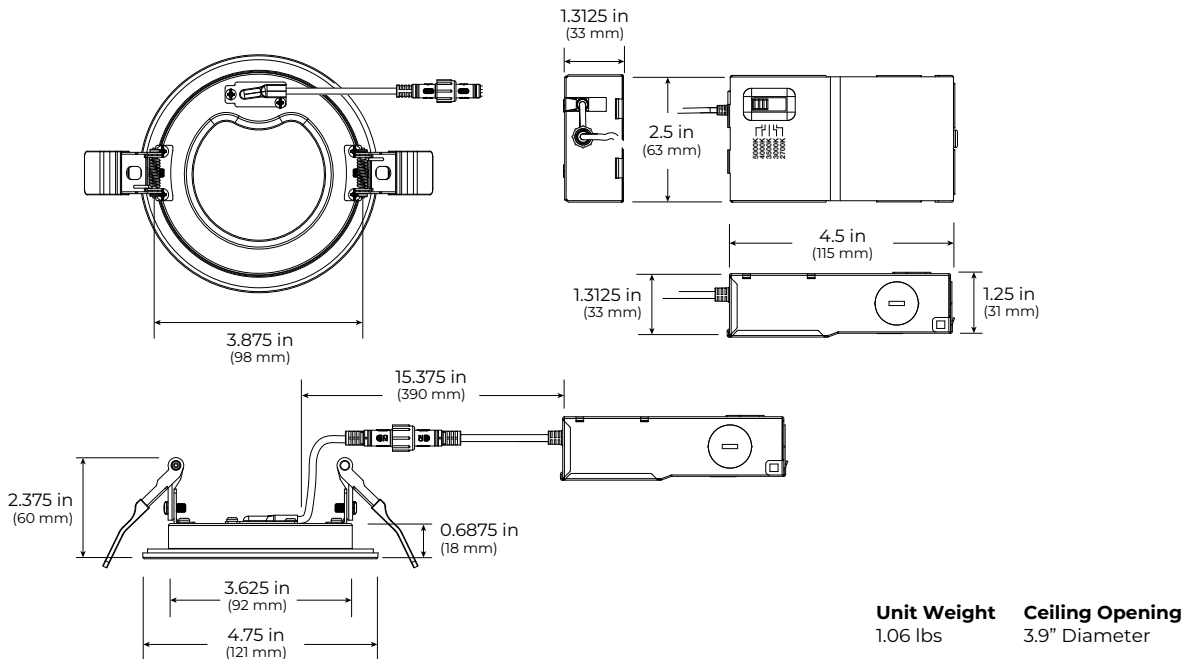
# Fire-Rated Canless Downlights 5 CCT COLOR PREFERENCE® | J-BOX MOUNT RECESSED DOWNLIGHT

## DIMENSIONS / DETAILS

### 3-IN



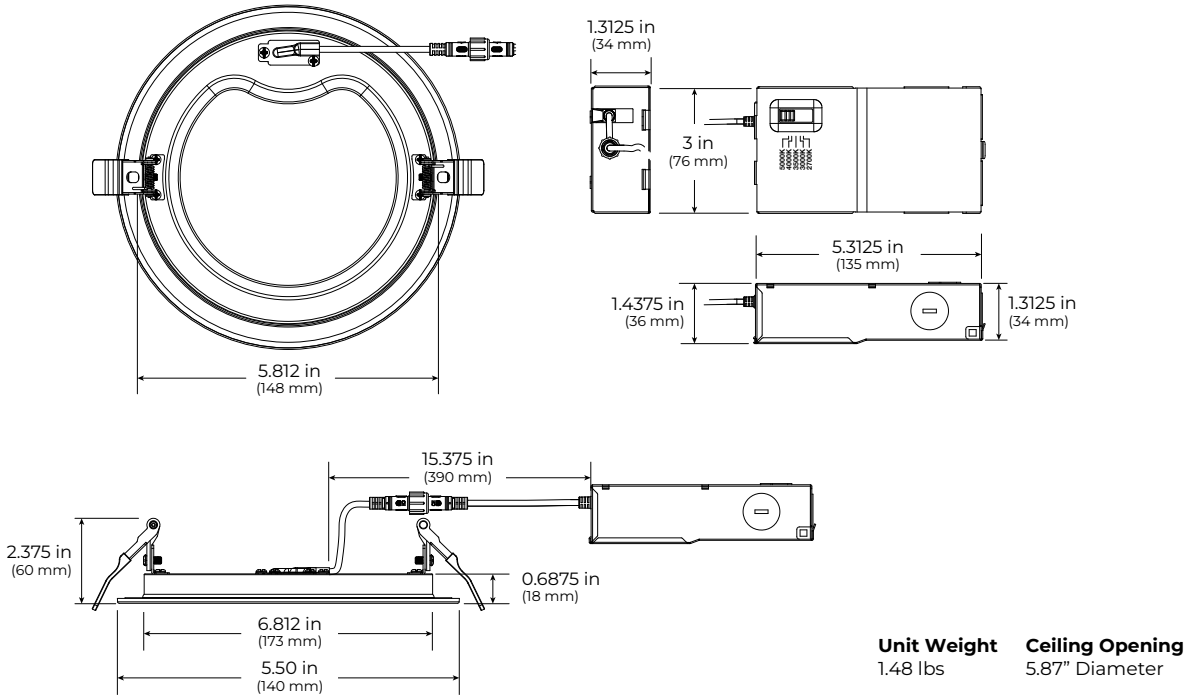
### 4-IN



# Fire-Rated Canless Downlights 5 CCT COLOR PREFERENCE® | J-BOX MOUNT RECESSED DOWNLIGHT

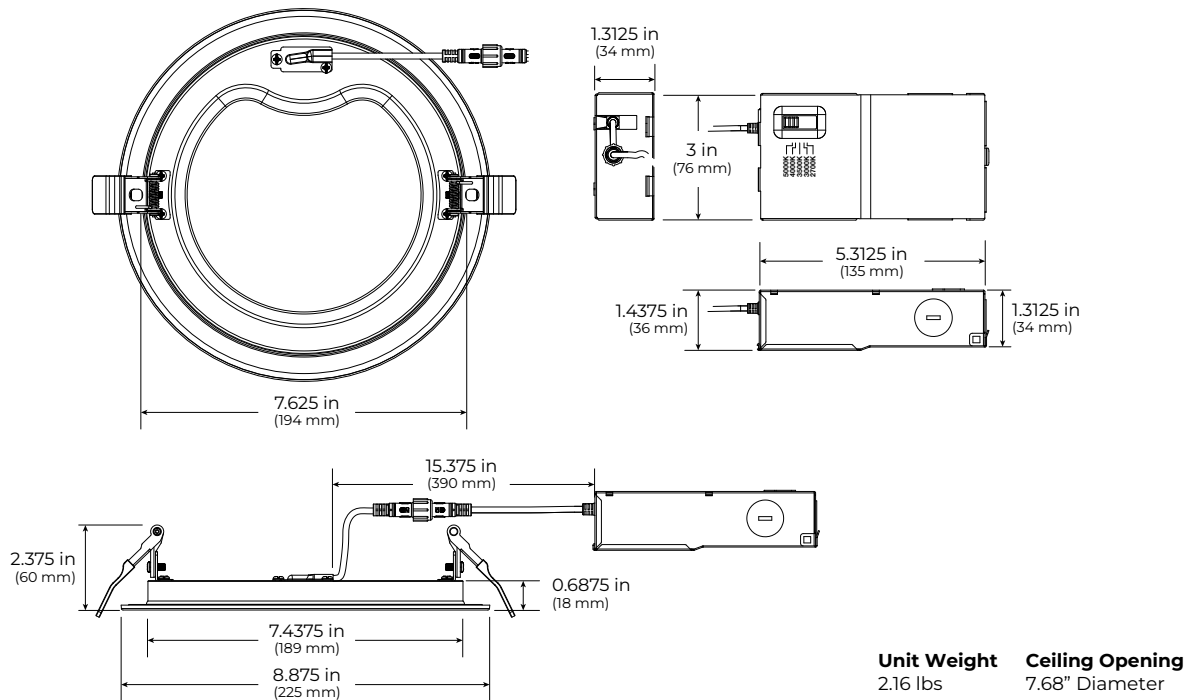
## DIMENSIONS / DETAILS

### 6-IN



Factory settings:  
2700K

### 8-IN



Factory settings:  
2700K

## PERFORMANCE / Data

### Lumen Maintenance

Ambient Temp.	TM-21 Lumen Maintenance (54,000 hours)
25° C (77° F)	85.29%
Ambient Temp.	TM-21 Theoretical L70 (hours)
25° C (77° F)	>72,000

### Load Information

<b>Power Factor</b>	> 0.90
<b>THD</b>	< 20%
<b>Frequency</b>	60 Hz
<b>Sound Rating</b>	< 20 Dba
<b>Low Temp Start / Max Temp</b>	-20°C (-4°F) / 40°C (104° F)

## PHOTOMETRIC SAMPLES

3IN

IES

### Luminaire Data: 3" at 3500K

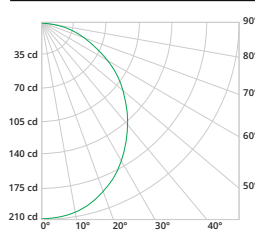
CCT & CRI	<b>3500K, 90+ CRI</b>
Delivered Lumens	<b>563.8</b>
Wattage	<b>6.14W</b>
Efficacy	<b>92</b>
Beam Angle	<b>50%=107.3° 10%=160.1°</b>
Spacing	<b>0° = 1.21 90° = 1.22</b>

Photometric values based on tests performed in compliance with LM-63 & LM-79

### Zonal Lumen Summary

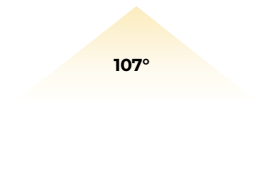
Zone	Lumens	% Luminaire
0-30	159.6	28.3%
0-40	258.8	45.9%
0-60	449.2	79.7%
0-90	563.8	100%

### Candela Plot



### Candela Distribution

Angle	0°	90°
0	209	209
5	208	208
10	204	204
15	198	199
20	191	191
25	181	182
30	170	171
35	157	159
40	144	145
45	130	131
50	114	116
55	99	101
60	83	85
65	67	69
70	50	52
75	34	36
80	20	22
85	7.1	8.6
90	0.3	0.2



### % Effective Ceiling Cavity Reflectance

Ceiling	80%				70%				50%				30%				10%				0%
Wall	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
<b>RCR</b>	Zonal cavity method—Effective floor reflectance = 20%																				
0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100	100	100	100
1	109	104	100	96	106	102	98	85	98	94	92	94	91	89	90	88	86	84	84	84	84
2	99	91	84	78	96	89	83	72	85	80	76	82	78	74	79	76	72	70	70	70	70
3	90	80	72	65	88	78	71	61	75	69	64	73	67	62	70	65	61	59	59	59	59
4	83	71	62	55	81	70	61	52	67	60	54	65	59	54	63	57	53	51	51	51	51
5	76	63	54	48	74	62	54	46	60	53	47	58	52	46	56	51	46	44	44	44	44
6	70	57	48	42	68	56	48	40	54	47	41	53	46	41	51	45	40	38	38	38	38
7	65	52	43	37	64	51	43	36	49	42	37	48	41	36	47	41	36	34	34	34	34
8	61	47	39	33	59	47	39	32	45	38	33	44	37	32	43	37	32	30	30	30	30
9	57	43	35	30	55	43	35	29	42	35	29	41	34	29	40	34	29	27	27	27	27
10	53	40	32	27	52	40	32	26	39	32	27	38	31	27	37	31	27	25	25	25	25

4IN

IES

### Luminaire Data: 4" at 3500K

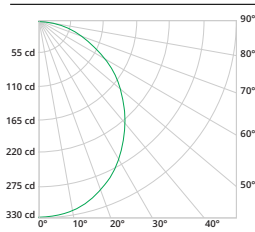
CCT & CRI	<b>3500K, 90+ CRI</b>
Delivered Lumens	<b>917.8</b>
Wattage	<b>9.6W</b>
Efficacy	<b>96</b>
Beam Angle	<b>50%=110.5° 10%=161.28°</b>
Spacing	<b>0° = 1.24 90° = 1.25</b>

Photometric values based on tests performed in compliance with LM-63 & LM-79

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	253.6	27.6%
0-40	414.1	45.1%
0-60	727.1	79.2%
0-90	917.8	100%

### Candela Plot



### Candela Distribution

Angle	0°	90°
0	328	328
5	326	326
10	320	322
15	312	315
20	302	304
25	289	291
30	272	275
35	254	257
40	234	237
45	211	214
50	188	190
55	163	165
60	137	138
65	111	111
70	84	84
75	58	58
80	34	34
85	13	13
90	0.4	0.4



### % Effective Ceiling Cavity Reflectance

Ceiling	80%				70%				50%				30%				10%				0%
Wall	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
<b>RCR</b>	Zonal cavity method—Effective floor reflectance = 20%																				
0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100	100	100	100
1	109	104	100	96	106	102	98	85	97	94	91	94	91	89	9	88	86	84	84	84	84
2	99	91	84	78	96	89	82	71	85	80	75	82	77	74	79	75	72	70	70	70	70
3	90	80	71	65	88	78	70	60	75	69	63	72	67	62	70	65	61	59	59	59	59
4	83	71	62	55	80	69	61	52	67	59	54	64	58	53	62	57	52	50	50	50	50
5	76	63	54	47	74	62	53	45	60	52	47	58	51	46	56	50	46	43	43	43	43
6	70	57	48	41	68	56	47	40	54	46	41	52	46	40	51	45	40	38	38	38	38
7	65	51	43	36	63	51	42	35	49	42	36	48	41	36	46	40	36	34	34	34	34
8	60	47	38	33	59	46	38	32	45	37	32	44	37	32	42	36	32	30	30	30	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27	27	27	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24	24	24	24

## PHOTOMETRIC SAMPLES

**GIN**

**IES**

**Luminaire Data: 6" at 3500K**

CCT & CRI	<b>3500K, 90+ CRI</b>
Delivered Lumens	<b>1309.5</b>
Wattage	<b>13.8W</b>
Efficacy	<b>102</b>
Beam Angle	<b>50%=110.4° 10%=161.4°</b>
Spacing	<b>0° = 1.23 90° = 1.25</b>

Photometric values based on tests performed in compliance with LM-63 & LM-79

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	361.6	27.6%
0-40	590.3	45.1%
0-60	1,035.6	79.1%
0-90	1,309.5	100%

**Candela Plot**

**110°**

**Candela Distribution**

Angle	0°	90°
0	467	467
5	465	465
10	457	460
15	445	450
20	429	436
25	411	418
30	388	396
35	361	370
40	332	337
45	301	305
50	268	272
55	233	237
60	196	200
65	155	163
70	118	125
75	82	88
80	49	53
85	20	23
90	0.57	0.55

**% Effective Ceiling Cavity Reflectance**

Ceiling	80%				70%				50%				30%				10%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
Wall	Zonal cavity method—Effective floor reflectance = 20%																				
RCR	Zonal cavity method—Effective floor reflectance = 20%																				
0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	85	97	94	91	93	91	88	90	88	86	84			
2	99	91	84	78	96	89	82	71	85	80	75	82	77	74	79	75	72	70			
3	90	80	71	65	88	78	70	60	75	68	63	72	67	62	70	65	61	59			
4	82	70	62	55	80	69	61	52	67	59	54	64	58	53	62	57	52	50			
5	76	63	54	47	74	62	53	45	60	52	46	58	51	46	56	50	45	43			
6	70	57	48	41	68	56	47	40	54	46	41	52	45	40	51	45	40	38			
7	65	51	43	36	63	51	42	35	49	41	36	48	41	36	46	40	35	33			
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30			
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27			
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24			

**GIN**

**IES**

**Luminaire Data: 8" at 3500K**

CCT & CRI	<b>3500K, 90+ CRI</b>
Delivered Lumens	<b>1908.9</b>
Wattage	<b>17.6W</b>
Efficacy	<b>108</b>
Beam Angle	<b>50%=112° 10%=161.6°</b>
Spacing	<b>0° = 1.26 90° = 1.25</b>

Photometric values based on tests performed in compliance with LM-63 & LM-79

**Zonal Lumen Summary**

Zone	Lumens	% Luminaire
0-30	520.7	27.3%
0-40	852.4	44.7%
0-60	1,506.5	78.9%
0-90	1,908.9	100%

**Candela Plot**

**112°**

**Candela Distribution**

Angle	0°	90°
0	672	672
5	669	669
10	660	660
15	645	645
20	625	625
25	599	599
30	568	567
35	532	532
40	492	492
45	448	447
50	401	400
55	350	345
60	297	291
65	242	236
70	184	180
75	127	125
80	76	74
85	31	29
90	1	1

**% Effective Ceiling Cavity Reflectance**

Ceiling	80%				70%				50%				30%				10%				0%
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
Wall	Zonal cavity method—Effective floor reflectance = 20%																				
RCR	Zonal cavity method—Effective floor reflectance = 20%																				
0	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100			
1	109	104	100	96	106	102	98	85	97	94	91	93	91	88	9	88	86	84			
2	99	91	84	78	96	89	82	71	85	80	75	82	77	73	79	75	72	70			
3	90	79	71	65	88	78	70	60	75	68	63	72	66	62	69	65	61	59			
4	82	70	61	55	80	69	61	52	66	59	54	64	58	53	62	57	52	50			
5	76	63	54	47	74	62	53	45	60	52	46	58	51	46	56	50	45	43			
6	70	56	47	41	68	56	47	40	54	46	40	52	45	40	50	44	40	38			
7	65	51	42	36	63	50	42	35	49	41	36	47	41	36	46	40	35	33			
8	60	47	38	32	59	46	38	31	45	37	32	43	37	32	42	36	32	30			
9	56	43	35	29	55	42	34	28	41	34	29	40	33	29	39	33	28	27			
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24			