

Lumination™ LED Luminaires

Downlights Powered by Infusion™
R18 - 8" Round Aperture



Project name _____

Date _____

Type _____

Product Description:

Convert any commercial or industrial downlight to LED with the new Lumination RI Series retrofit LED downlight. Powered by the Infusion LED downlight module, the RI series delivers exceptional efficacy and 90+ CRI with high R9 across all lumen packages and color temperatures. Custom engineered, spec-grade optical system provide an exceptional aesthetic with 45° cutoff and no glare. Tool-free installation from below the ceiling in just minutes. 50,000 hour life virtually eliminates maintenance costs. Output up to 3460 lumens is ideal for high-ceiling applications.

Targeted Performance Summary:

Distribution Patterns: Narrow, Medium, Wide

Input Voltage: 120V, 277V

Standard Dimming Controls: 0-10V to 10%

CCT: 2700K, 3000K, 3500K, 4000K

CRI: 90

Color Consistency: 4 Step MacAdam Ellipse

Lifetime Rating: L85 @ 50,000 hours

Input Frequency (Hz): 60Hz

Power Factor: >0.9

Mounting Options: Universal mounting frame secures to existing rough-in kit

Weight: 6 lb

IC Rating: Non-IC Rated

Temperature Rating: 35C max cavity temperature

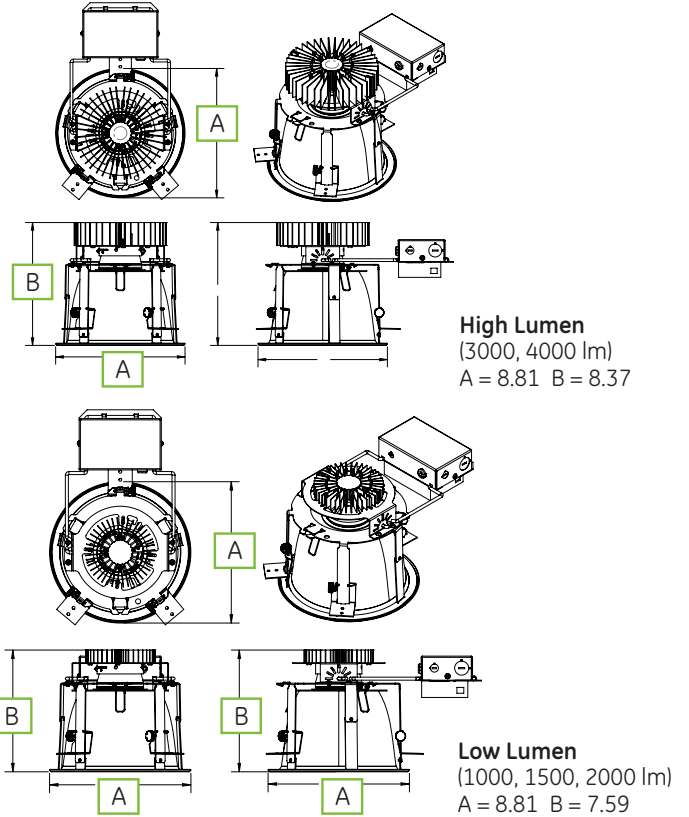
Limited Warranty: 5 years system

Files Available: LM79, LM80, IES

Nominal Module Lumens	1000	1500	2000	3000	4000
Fixture Lumens	880	1300	1760	2650	3460
System Input Power	14	19.5	25.0	38	51
System Efficacy (LPW)	63	67	70	70	68

Performance claims are for 120V, clear, specular reflectors. Other reflector finishes and colors will have an effect on performance.

Product Dimensions:



Listings:

- Suitable for damp locations.

a product of
ecomagination™

Ordering Information: For shortest lead time and lowest price, order **standard reflector options shown in bold**.

R | 8

HOUSING	MODULE LUMENS	CCT	BEAM SPREAD	REFLECTOR FINISH	REFLECTOR COLOR	FLANGE	VOLTAGE ⁴
R18 = Retrofit Downlight, Infusion, 8" Round	10 = 1000 LM	27 = 2700K	N = Narrow	RM = Semi-specular	CL = Clear	FM = Match Reflector	1 = 120V, 0-10V dimming 2 = 277V, 0-10V dimming ¹ P = Forward Phase dimming driver 3 = Lutron EcoSystem, 120V 4 = Lutron EcoSystem, 277V
	15 = 1500 LM	30 = 3000K	M = Medium	RD = Diffused	CB² = Black	FW = White	
	20 = 2000 LM	35 = 3500K	W = Wide	RS = Specular	CK² = Gold		
	30 = 3000 LM	40 = 4000K		RP¹ = Painted	CP² = Pewter		
	40 = 4000 LM				CT² = Wheat		
					CW = White Paint		

Ordering Notes:

1. Use with CW = White reflector color only.
2. Reflector colors (other than white paint) available with RM = Semi-specular reflector finish only.
3. See back page of spec sheet for goof ring dimensional info.
4. 277V input, 1000 lumen version is not Energy Star certified.
5. Phase dimming available in 1000, 1500, and 2000 lumen packages only.
6. Lutron EcoSystem available only in 1000 and 1500 lumen packages only.

ACCESSORIES	DESCRIPTION CODE	PRODUCT CODE
347V Field Installed Transformer Kit	TR347/120-75VA	83264
8" Goof Ring, Specular Finish	RIGR8RS ³	78838
8" Goof Ring, Semi-Spec Finish	GRR8RDCL	93018830
8" Goof Ring, Diffused Finish	RIGR8RD ³	16166
8" Goof Ring, White Painted	GRR8RPTWT	93018831



Photometric Data: Lumination™ RI8 Series Downlights

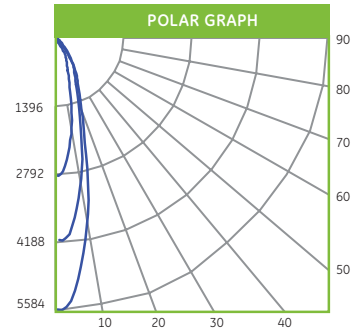
Narrow Distribution

Performance claims are for clear specular reflectors. Other reflector finishes and colors will have an effect on performance.

COEFFICIENTS OF UTILIZATION																			
RC	80%				70%				50%				30%			10%			0%
	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	103	102	101	100	99	98	97	95
2	110	106	103	100	108	104	101	99	101	99	96	98	96	94	95	94	92	91	
3	106	100	96	93	104	99	95	92	97	93	91	94	92	89	92	90	88	87	
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	89	86	84	83	
5	98	91	86	83	96	90	86	82	88	85	82	87	83	81	85	82	80	79	
6	94	87	82	78	93	86	82	78	85	81	78	83	80	77	82	79	77	75	
7	91	83	78	75	89	82	78	75	81	77	74	80	77	74	79	76	73	72	
8	87	80	75	71	86	79	75	71	78	74	71	77	73	71	76	73	70	69	
9	84	77	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	67	
10	81	74	69	66	81	73	69	66	72	68	65	72	68	65	71	68	65	64	

NOTE: Floor Cavity Reflectance : 20%

Narrow - 1000, 1500, 2000 Lm



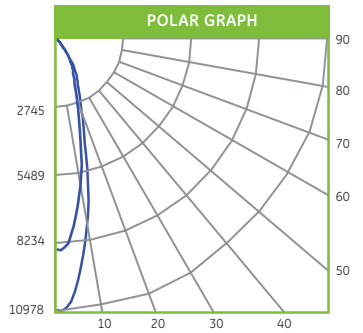
CANDLEPOWER SUMMARY

Angle	NOMINAL MODULE LUMENS				
	1000	1500	2000	3000	4000
0	2773	4096	5546	8349	10903
5	2590	3825	5179	7797	10182
10	1932	2853	3863	5816	7595
15	1175	1736	2350	3539	4621
20	776	1146	1551	2335	3050
25	546	807	1093	1645	2149
30	389	575	778	1171	1530
35	191	282	381	574	750
40	56	82	112	168	219
45	8	12	17	25	33
50	2	3	4	6	8
55	1	2	3	4	5
60	1	1	2	3	3

ZONAL LUMEN SUMMARY

Zone	NOMINAL MODULE LUMENS					% of Fixture
	1000	1500	2000	3000	4000	
0 - 30°	765	1130	1531	2305	3010	87.0
0 - 40°	869	1283	1738	2617	3417	98.8
0 - 60°	879	1298	1758	2647	3456	99.9
0 - 90°	880	1299	1760	2649	3460	100.0

Narrow - 3000, 4000 Lm



CONE OF LIGHT

Height	NOMINAL MODULE LUMENS					Dia. (ft.)
	1000	1500	2000	3000	4000	
6'	77	114	154	232	303	2.7
8'	43	64	87	130	170	3.5
10'	28	41	55	83	109	4.4
12'	19	28	39	58	76	5.3
14'	14	21	28	43	56	6.2
16'	11	16	22	33	43	7.1
18'	9	13	17	26	34	8.0
20'	7	10	14	21	27	8.9

APPLICATION REFERENCE (Open Space)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' x 4'	57.0	0.96	84.1	1.38	113.9	1.74	152.5	2.46	199.2	3.24
6' x 6'	26.6	0.45	39.3	0.64	53.2	0.81	71.2	1.15	93.0	1.51
8' x 8'	14.2	0.24	21.0	0.35	28.5	0.44	38.1	0.62	49.8	0.81
10' x 10'	9.5	0.16	14.0	0.23	19.0	0.29	25.4	0.41	33.2	0.54

10' ceiling, Open Space: 50' x 40' x 10' 20' ceiling, Open Space: 50' x 40' x 20'

LLF: 1.0 Initial, 80/50/20 Reflectances, 2.5' workplane

APPLICATION REFERENCE (Corridor)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' on ctr.	28.4	0.67	41.9	0.96	56.7	1.21	63.4	1.71	82.8	2.25
6' on ctr.	19.3	0.45	28.5	0.65	38.6	0.82	43.1	1.16	56.3	1.53
8' on ctr.	13.6	0.32	20.1	0.46	27.2	0.58	30.4	0.82	39.7	1.08
10' on ctr.	11.3	0.27	16.8	0.38	22.7	0.48	25.3	0.68	33.1	0.90

10' ceiling, Corridor: 6' W x 100' L 20' ceiling, Corridor: 6' W x 100' L

LLF: 1.0 Initial, 80/50/20 Reflectances, Light levels on the ground

Spacing Criteria: RI8 - Narrow = 0.46

Photometric Data: Lumination™ RI8 Series Downlights

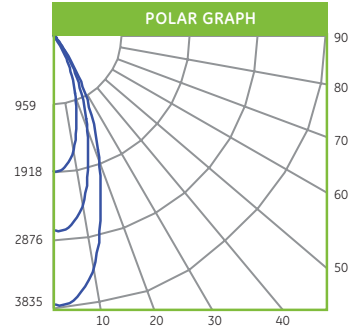
Medium Distribution

Performance claims are for clear specular reflectors. Other reflector finishes and colors will have an effect on performance.

COEFFICIENTS OF UTILIZATION																			
RC	80%				70%				50%				30%			10%			0%
	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%		
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	
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3	105	100	96	92	103	98	95	91	96	93	90	94	91	89	91	89	87	86	
4	101	95	90	86	99	94	89	86	91	88	85	90	86	84	88	85	83	82	
5	97	90	85	81	95	89	84	81	87	83	80	86	82	80	84	81	79	78	
6	93	86	81	77	92	85	80	77	84	79	76	82	79	76	81	78	75	74	
7	90	82	77	73	88	81	76	73	80	76	73	79	75	72	78	74	72	71	
8	86	78	73	70	85	78	73	69	77	72	69	76	72	69	75	71	69	68	
9	83	75	70	66	82	74	70	66	73	69	66	73	69	66	72	68	66	65	
10	80	72	67	64	79	71	67	63	71	66	63	70	66	63	69	66	63	62	

NOTE: Floor Cavity Reflectance : 20%

Medium - 1000, 1500, 2000 Lm



CANDLEPOWER SUMMARY

Angle	NOMINAL MODULE LUMENS				
	1000	1500	2000	3000	4000
0	1914	2827	3828	5763	7526
5	1861	2749	3723	5605	7319
10	1651	2438	3302	4971	6491
15	1289	1904	2578	3881	5069
20	928	1371	1857	2795	3650
25	638	943	1277	1922	2510
30	385	569	770	1159	1514
35	182	268	364	547	715
40	56	82	111	167	218
45	9	13	18	27	36
50	3	4	6	9	12
55	2	3	4	6	8
60	1	2	3	4	5

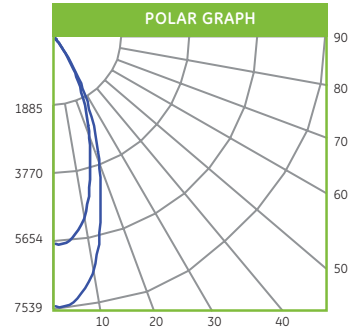
ZONAL LUMEN SUMMARY

Zone	NOMINAL MODULE LUMENS					% of Fixture
	1000	1500	2000	3000	4000	
0 - 30°	770	1138	1541	2320	3030	87.6
0 - 40°	867	1281	1735	2613	3412	98.6
0 - 60°	878	1297	1757	2645	3454	99.8
0 - 90°	880	1299	1760	2649	3460	100

CONE OF LIGHT

Height	NOMINAL MODULE LUMENS					Dia. (ft.)
	1000	1500	2000	3000	4000	
6'	53	79	106	160	209	4.1
8'	30	44	60	90	118	5.5
10'	19	28	38	58	75	6.9
12'	13	20	27	40	52	8.3
14'	10	14	20	29	38	9.6
16'	7	11	15	23	29	11.0
18'	6	9	12	18	23	12.4
20'	5	7	10	14	19	13.8

Medium - 3000, 4000 Lm



APPLICATION REFERENCE (Open Space)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' x 4'	56.8	0.96	83.9	1.38	113.6	1.74	151.2	2.46	196.8	3.24
6' x 6'	26.5	0.45	39.1	0.64	53.0	0.81	70.6	1.15	91.8	1.51
8' x 8'	14.2	0.24	21.0	0.35	28.4	0.44	37.8	0.62	49.2	0.81
10' x 10'	9.5	0.16	14.0	0.23	18.9	0.29	25.2	0.41	32.8	0.54

10' ceiling, Open Space: 50' x 40' x 10' 20' ceiling, Open Space: 50' x 40' x 20'

LLF: 1.0 Initial, 80/50/20 Reflectances, 2.5' workplane

APPLICATION REFERENCE (Corridor)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' on ctr.	27.7	0.67	41.0	0.96	55.5	1.21	60.1	1.71	77.4	2.25
6' on ctr.	18.9	0.45	27.8	0.65	37.7	0.82	40.9	1.16	52.6	1.53
8' on ctr.	13.3	0.32	19.7	0.46	26.6	0.58	28.9	0.82	37.1	1.08
10' on ctr.	11.1	0.27	16.4	0.38	22.2	0.48	24.1	0.68	30.9	0.90

10' ceiling, Corridor: 6' W x 100' L 20' ceiling, Corridor: 6' W x 100' L

LLF: 1.0 Initial, 80/50/20 Reflectances, Light levels on the ground

Spacing Criteria: RI8 - Medium = 0.64

Photometric Data: Lumination™ RI8 Series Downlights

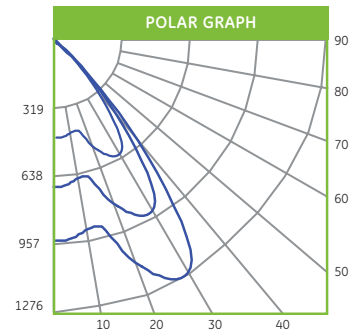
Wide Distribution

Performance claims are for clear specular reflectors. Other reflector finishes and colors will have an effect on performance.

COEFFICIENTS OF UTILIZATION																				
RC	80%				70%				50%				30%				10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92		
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84		
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77		
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70		
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64		
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60	58		
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53		
8	73	63	56	51	72	62	56	51	61	55	51	60	54	51	59	54	50	49		
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45		
10	65	54	48	43	64	54	47	43	53	47	43	52	47	43	51	46	43	41		

NOTE: Floor Cavity Reflectance : 20%

Wide - 1000, 1500, 2000 Lm



CANDLEPOWER SUMMARY

Angle	NOMINAL MODULE LUMENS				
	1000	1500	2000	3000	4000
0	472	698	945	1422	1857
5	469	692	937	1411	1843
10	455	673	911	1371	1790
15	462	683	924	1391	1817
20	558	824	1115	1679	2193
25	615	909	1230	1852	2419
30	631	932	1263	1901	2482
35	539	796	1078	1622	2119
40	323	477	646	972	1270
45	137	202	274	412	538
50	45	66	90	135	177
55	5	7	10	15	19
60	2	3	3	5	7

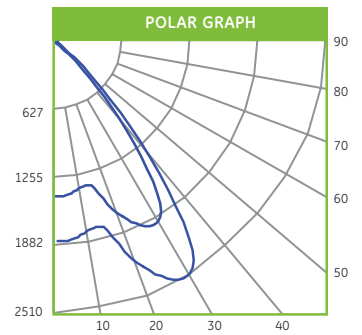
ZONAL LUMEN SUMMARY

Zone	NOMINAL MODULE LUMENS					% of Fixture
	1000	1500	2000	3000	4000	
0 - 30°	466	689	933	1405	1835	53.0
0 - 40°	768	1134	1536	2313	3020	87.3
0 - 60°	877	1296	1755	2643	3452	99.8
0 - 90°	880	1299	1759	2649	3460	100.0

CONE OF LIGHT

Height	NOMINAL MODULE LUMENS					Dia. (ft.)
	1000	1500	2000	3000	4000	
6'	13	19	26	40	52	7.2
8'	7	11	15	22	29	9.6
10'	5	7	9	14	19	12.0
12'	3	5	7	10	13	14.4
14'	2	4	5	7	9	16.8
16'	2	3	4	6	7	19.2
18'	1	2	3	4	6	21.6
20'	1	2	2	4	5	24.0

Wide - 3000, 4000 Lm



APPLICATION REFERENCE (Open Space)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' x 4'	54.7	0.96	80.8	1.38	109.4	1.74	136.9	2.46	178.7	3.24
6' x 6'	25.5	0.45	37.7	0.64	51.1	0.81	63.9	1.15	83.4	1.51
8' x 8'	13.7	0.24	20.2	0.35	27.4	0.44	34.2	0.62	44.7	0.81
10' x 10'	9.1	0.16	13.5	0.23	18.2	0.29	22.8	0.41	29.8	0.54

10' ceiling, Open Space: 50' x 40' x 10' 20' ceiling, Open Space: 50' x 40' x 20'

LLF: 1.0 Initial, 80/50/20 Reflectances, 2.5' workplane, Light levels on the ground

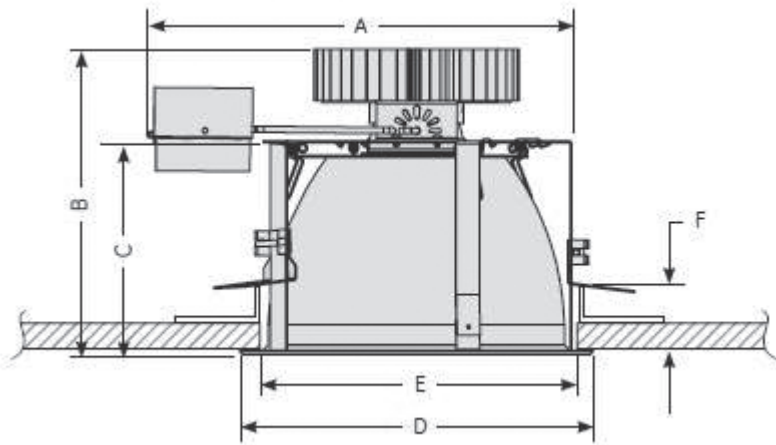
APPLICATION REFERENCE (Corridor)

Spacing	NOMINAL MODULE LUMENS									
	1000		1500		2000		3000		4000	
	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²	Avg. fc	W/ft²
4' on ctr.	21.6	0.67	31.9	0.96	43.2	1.21	37.2	1.71	48.6	2.25
6' on ctr.	14.7	0.45	21.7	0.65	29.4	0.82	25.3	1.16	33.1	1.53
8' on ctr.	10.4	0.32	15.3	0.46	20.7	0.58	17.9	0.82	23.3	1.08
10' on ctr.	8.6	0.27	12.8	0.38	17.3	0.48	14.9	0.68	19.5	0.90

10' ceiling, Corridor: 6' W x 100' L 20' ceiling, Corridor: 6' W x 100' L

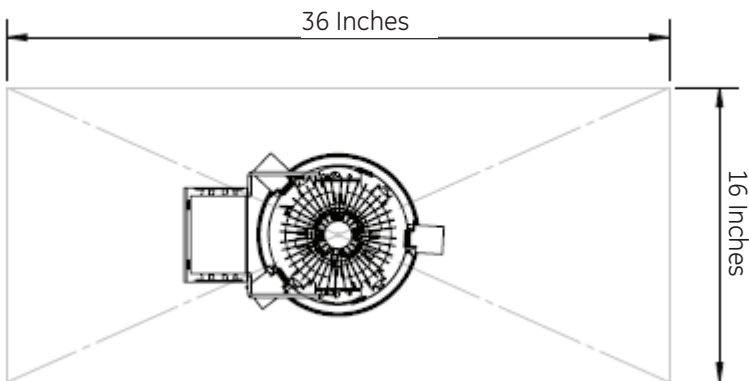
LLF: 1.0 Initial, 80/50/20 Reflectances, 2.5' workplane, Light levels on the ground

Spacing Criteria: RI8 - Wide = 1.52



PARAMETER	FRAME SIZE 8"
A Width of Frame with Swing Arm Extended	12.51"
B Height from Bottom of Reflector to Top of Heat Sink	8.37" High Lumen 7.39" Low Lumen
C Height from Bottom of Reflector to Top of Frame	5.57"
D Reflector Diameter	8.80"
E Cut-Out Dimension for Ceiling	7.88" - 8.50" 8.5" - 9.75" (w/Goof Ring)
F Maximum Ceiling and Rough-in Kit Thickness	3.00"

- SPACING REQUIREMENTS FOR FIXTURE: EACH INDIVIDUAL FIXTURE NEEDS TO HAVE 576 SQUARE INCHES OF SPACE BEFORE ANY OBJECT/OBSTRUCTION
- THERMAL PROTECTION FEATURE PRESENT IN MODULE THAT PROTECTS LEDS FROM OVERHEATING IN ABNORMAL CONDITIONS



Product Specifications:

Construction:

- 18 gauge galvanized steel housing
- 14 gauge aluminum reflectors resist dents during transportation and installation
- Custom engineered heat sinks for passive cooling at all lumen option

Installation:

- Universal mounting frame installs from below the ceiling and secures to existing rough in kit with 3 mounting clamps
- Hinged J-box eases installation through ceiling hole and then flips into traditional remodel housing position
- Included tether secures to existing fixture frame for hands-free wiring

Optical System:

- Custom engineered reflectors for precise beam distributions and 45° cutoff to light source and source image
- Self-flanged design with white or reflector-matching flange
- Available in specular, semi-specular, and diffused finishes in 10 different colors to precisely match existing fixtures
- Reflector is retained by four torsion springs to ensure uniform seating to LED module for exceptional light distribution for the life of the product
- LPW calculated using 120V. System will see decrease of ~5% using @ 277V and ~25% @ 347V

Electrical System:

- Infusion DLM LED module for exceptional performance and tool-free upgradeability
- Standard 0-10V dimming, high efficiency drivers
- Pre-wired with 30" flexible armored cable and push-in connector compatible with 1/2" knockout on existing junction box
- Thermal protection feature in module protects LEDs from overheating in abnormal conditions

For more information and access to all of our resources, including our design tool visit: www.gelighting.com



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