

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P688026

Luminaire Tested: FLR-HA-22-L3C3 (MED)-35-CP375

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-22-L3C3 (MED)-35-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire at Midium Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

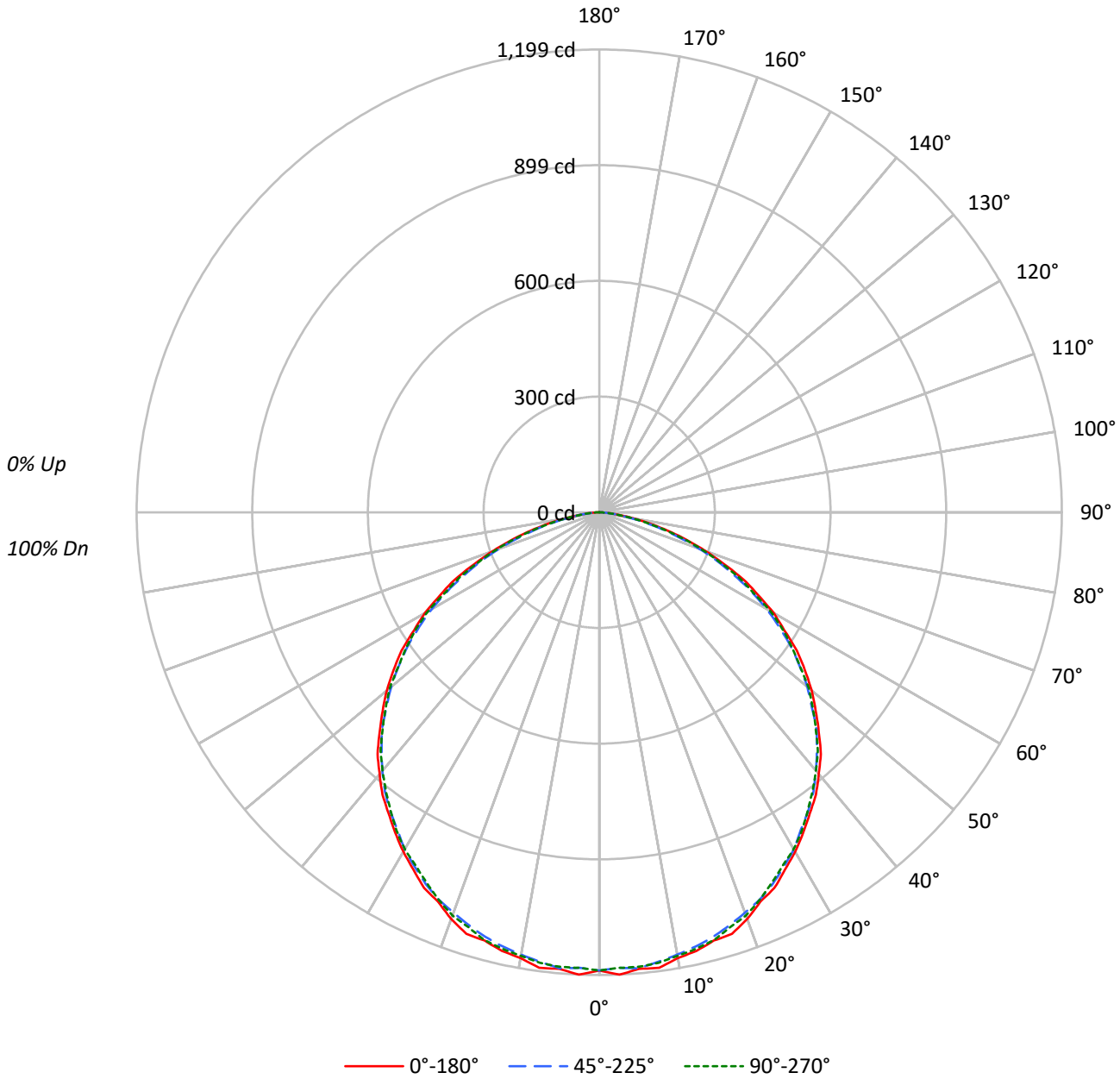
Lumens per Lamp: N/A
Luminaire Lumens: 3272.4 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85	85	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71	71	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60	60	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51	51	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45	45	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39	39	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28	28	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3195	3195	3195
5°	3207	3204	3193
10°	3205	3180	3189
15°	3201	3173	3197
20°	3212	3162	3184
25°	3189	3156	3143
30°	3155	3133	3131
35°	3127	3103	3097
40°	3110	3072	3069
45°	3063	3030	3021
50°	3010	2947	2966
55°	2933	2845	2860
60°	2808	2693	2756
65°	2630	2460	2539
70°	2304	2155	2237
75°	1908	1718	1813
80°	1351	1210	1260
85°	682	602	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.4	3.4
10°-20°	322.6	9.9
20°-30°	489.8	15.0
30°-40°	591.1	18.1
40°-50°	612.8	18.7
50°-60°	542.8	16.6
60°-70°	387.5	11.8
70°-80°	183.6	5.6
80°-90°	30.0	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	924.7	28.3
0°-40°	1515.7	46.3
0°-60°	2671.3	81.6
0°-90°	3272.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3272.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1187	1181	1186	1178	1182	113
15°	1149	1142	1139	1146	1148	326
25°	1074	1056	1063	1064	1058	494
35°	952	942	945	941	943	597
45°	805	793	796	794	794	621
55°	625	608	606	604	610	556
65°	413	386	386	389	399	404
75°	184	168	165	169	174	195
85°	22	20	20	19	21	33
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1187.3	1187.3	1187.3	1187.3	1187.3
2.5°	1199.0	1178.2	1181.4	1184.0	1181.4
5°	1187.3	1181.4	1186.0	1177.5	1182.1
7.5°	1190.5	1176.2	1174.3	1171.7	1177.5
10°	1173.0	1164.5	1163.9	1168.4	1167.1
12.5°	1163.9	1156.7	1152.8	1153.5	1158.7
15°	1148.9	1142.4	1139.1	1145.6	1147.6
17.5°	1145.0	1122.2	1122.2	1123.5	1127.4
20°	1121.6	1106.6	1104.0	1106.6	1111.8
22.5°	1091.7	1086.4	1086.4	1088.4	1087.1
25°	1074.1	1056.5	1063.0	1063.7	1058.5
27.5°	1043.5	1037.0	1035.7	1033.1	1031.1
30°	1015.5	1005.1	1008.4	1008.4	1007.7
32.5°	984.3	977.2	973.9	974.6	977.8
35°	951.8	942.0	944.6	940.7	942.7
37.5°	922.5	909.5	912.1	910.1	908.2
40°	885.4	875.0	874.4	871.1	873.7
42.5°	850.3	835.3	834.7	835.3	838.6
45°	804.8	793.0	796.3	793.7	793.7
47.5°	761.2	753.4	747.5	748.2	750.8
50°	718.9	703.9	703.9	698.7	708.5
52.5°	672.0	657.1	655.1	657.1	655.8
55°	625.2	607.6	606.3	603.7	609.6
57.5°	568.6	551.7	553.0	554.3	562.7
60°	521.8	499.0	500.3	501.6	512.0
62.5°	463.9	445.0	444.3	446.3	448.9
65°	413.1	386.4	386.4	389.0	398.8
67.5°	348.7	332.4	331.8	335.0	338.9
70°	292.8	273.9	273.9	277.8	284.3
72.5°	236.8	221.2	218.6	224.4	229.0
75°	183.5	168.5	165.2	169.1	174.4
77.5°	131.4	121.7	119.1	123.0	124.3
80°	87.2	78.7	78.1	80.0	81.3
82.5°	50.1	44.9	42.9	44.9	45.5
85°	22.1	20.2	19.5	18.9	20.8
87.5°	5.2	5.2	5.2	5.2	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)