

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: P688027

Luminaire Tested: FLR-HA-22-L3C3 (MED)-40-CP375

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688027
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)-40-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at Midium Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

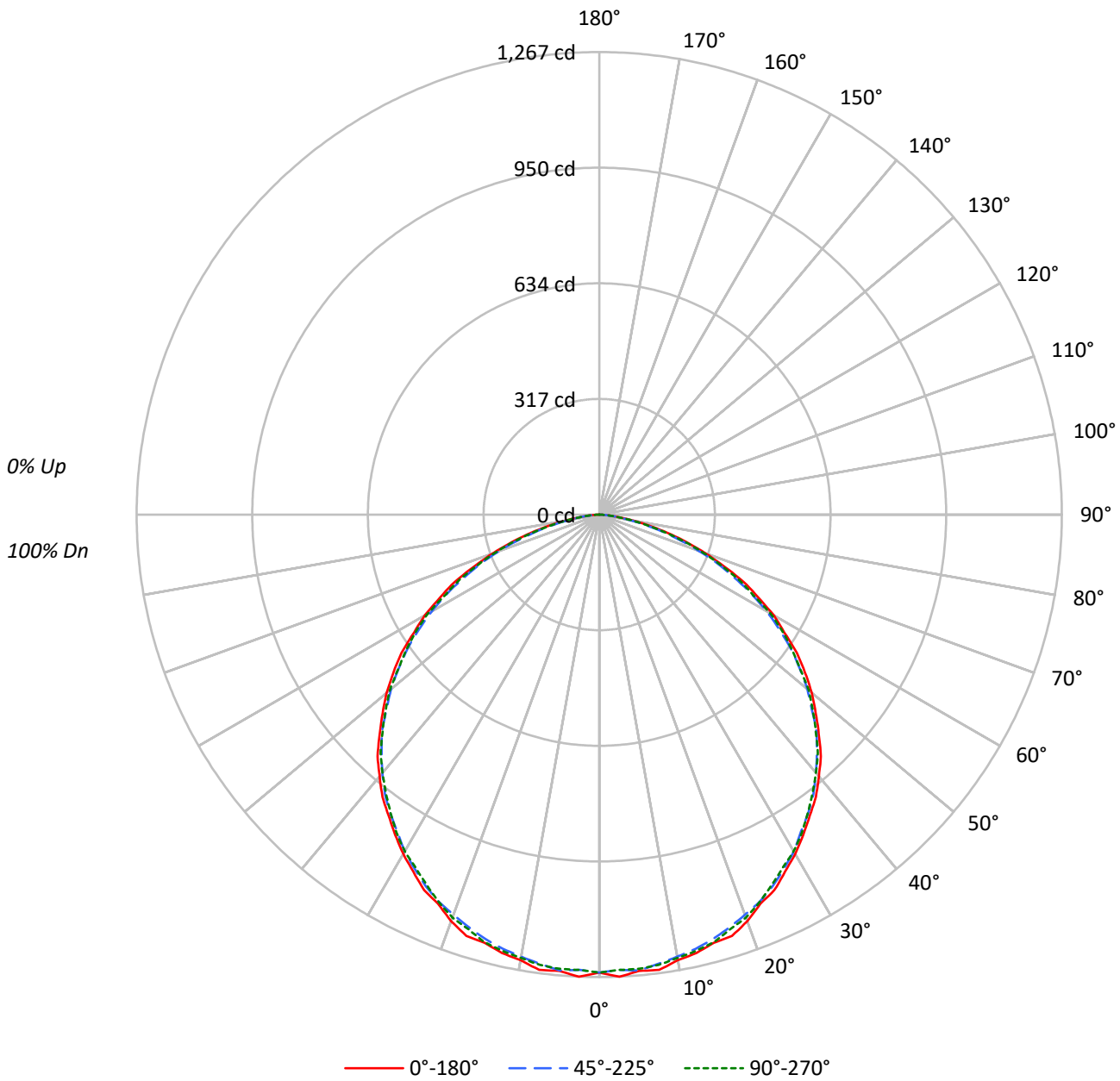
Lumens per Lamp: N/A
Luminaire Lumens: 3458.2 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 28.9
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3376	3376	3376
5°	3389	3385	3374
10°	3387	3361	3370
15°	3382	3354	3379
20°	3394	3341	3365
25°	3370	3336	3321
30°	3335	3311	3309
35°	3304	3279	3273
40°	3287	3246	3243
45°	3236	3202	3192
50°	3180	3114	3134
55°	3100	3006	3022
60°	2968	2845	2912
65°	2780	2600	2683
70°	2434	2277	2364
75°	2016	1815	1916
80°	1427	1278	1331
85°	722	636	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3236 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.7	3.4
10°-20°	340.9	9.9
20°-30°	517.6	15.0
30°-40°	624.6	18.1
40°-50°	647.6	18.7
50°-60°	573.7	16.6
60°-70°	409.5	11.8
70°-80°	194.0	5.6
80°-90°	31.7	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
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0°-30°	977.2	28.3
0°-40°	1601.8	46.3
0°-60°	2823.0	81.6
0°-90°	3458.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3458.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1255	1255	1255	1255	1255	
5°	1255	1248	1253	1244	1249	120
15°	1214	1207	1204	1211	1213	344
25°	1135	1116	1123	1124	1119	522
35°	1006	996	998	994	996	631
45°	850	838	842	839	839	657
55°	661	642	641	638	644	587
65°	437	408	408	411	421	427
75°	194	178	175	179	184	206
85°	23	21	21	20	22	35
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1254.7	1254.7	1254.7	1254.7	1254.7
2.5°	1267.1	1245.1	1248.5	1251.3	1248.5
5°	1254.7	1248.5	1253.3	1244.4	1249.2
7.5°	1258.1	1243.0	1240.9	1238.2	1244.4
10°	1239.6	1230.6	1229.9	1234.8	1233.4
12.5°	1229.9	1222.4	1218.3	1218.9	1224.4
15°	1214.1	1207.3	1203.8	1210.7	1212.8
17.5°	1210.0	1185.9	1185.9	1187.3	1191.4
20°	1185.3	1169.4	1166.7	1169.4	1174.9
22.5°	1153.6	1148.1	1148.1	1150.2	1148.8
25°	1135.1	1116.5	1123.4	1124.1	1118.6
27.5°	1102.8	1095.9	1094.5	1091.8	1089.7
30°	1073.2	1062.2	1065.6	1065.6	1064.9
32.5°	1040.2	1032.6	1029.2	1029.9	1033.3
35°	1005.8	995.5	998.3	994.1	996.2
37.5°	974.9	961.1	963.9	961.8	959.8
40°	935.7	924.7	924.0	920.6	923.3
42.5°	898.6	882.8	882.1	882.8	886.2
45°	850.4	838.1	841.5	838.8	838.8
47.5°	804.4	796.1	789.9	790.6	793.4
50°	759.7	743.9	743.9	738.4	748.7
52.5°	710.2	694.4	692.3	694.4	693.0
55°	660.7	642.1	640.8	638.0	644.2
57.5°	600.9	583.0	584.4	585.8	594.7
60°	551.4	527.3	528.7	530.1	541.1
62.5°	490.2	470.3	469.6	471.6	474.4
65°	436.6	408.4	408.4	411.1	421.4
67.5°	368.5	351.3	350.6	354.1	358.2
70°	309.4	289.4	289.4	293.6	300.4
72.5°	250.3	233.8	231.0	237.2	242.0
75°	193.9	178.1	174.6	178.8	184.3
77.5°	138.9	128.6	125.8	129.9	131.3
80°	92.1	83.2	82.5	84.6	85.9
82.5°	52.9	47.4	45.4	47.4	48.1
85°	23.4	21.3	20.6	19.9	22.0
87.5°	5.5	5.5	5.5	5.5	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)