

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: P688024

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

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688024
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 (LOW)-40-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at Low Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

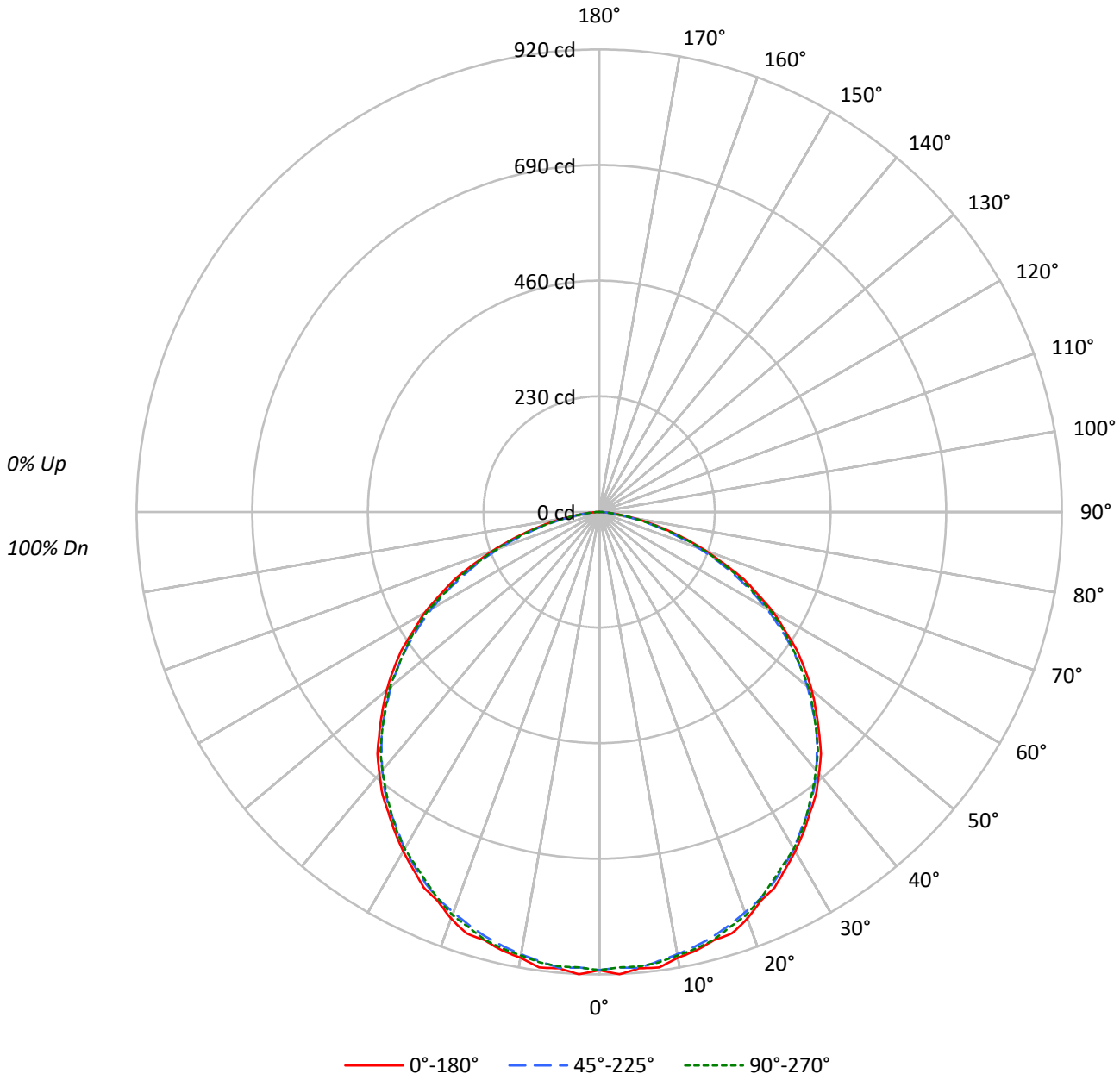
Lumens per Lamp: N/A
Luminaire Lumens: 2512.3 lumens
Efficiency: N/A
Efficacy: 118.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.3
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°	2453	2453	2453
5°	2462	2459	2451
10°	2461	2441	2448
15°	2457	2437	2454
20°	2466	2427	2444
25°	2448	2423	2413
30°	2423	2406	2404
35°	2400	2382	2377
40°	2388	2358	2356
45°	2351	2326	2319
50°	2310	2262	2277
55°	2252	2184	2196
60°	2156	2067	2116
65°	2020	1889	1950
70°	1769	1655	1718
75°	1464	1319	1392
80°	1037	928	967
85°	525	463	494

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2351 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.3	3.4
10°-20°	247.6	9.9
20°-30°	376.0	15.0
30°-40°	453.8	18.1
40°-50°	470.4	18.7
50°-60°	416.8	16.6
60°-70°	297.5	11.8
70°-80°	140.9	5.6
80°-90°	23.1	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°	709.9	28.3
0°-40°	1163.7	46.3
0°-60°	2050.8	81.6
0°-90°	2512.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2512.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	912	907	910	904	908	87
15°	882	877	875	880	881	250
25°	825	811	816	817	813	379
35°	731	723	725	722	724	458
45°	618	609	611	609	609	477
55°	480	466	466	464	468	427
65°	317	297	297	299	306	310
75°	141	129	127	130	134	150
85°	17	16	15	14	16	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.5	911.5	911.5	911.5	911.5
2.5°	920.5	904.5	907.0	909.0	907.0
5°	911.5	907.0	910.5	904.0	907.5
7.5°	914.0	903.0	901.5	899.5	904.0
10°	900.5	894.0	893.5	897.0	896.0
12.5°	893.5	888.0	885.0	885.5	889.5
15°	882.0	877.0	874.6	879.5	881.0
17.5°	879.0	861.6	861.6	862.6	865.6
20°	861.1	849.6	847.6	849.6	853.6
22.5°	838.1	834.1	834.1	835.6	834.6
25°	824.6	811.1	816.1	816.6	812.6
27.5°	801.1	796.1	795.1	793.1	791.6
30°	779.7	771.7	774.2	774.2	773.7
32.5°	755.7	750.2	747.7	748.2	750.7
35°	730.7	723.2	725.2	722.2	723.7
37.5°	708.2	698.2	700.2	698.7	697.2
40°	679.8	671.8	671.3	668.8	670.8
42.5°	652.8	641.3	640.8	641.3	643.8
45°	617.8	608.8	611.3	609.3	609.3
47.5°	584.4	578.4	573.9	574.4	576.4
50°	551.9	540.4	540.4	536.4	543.9
52.5°	515.9	504.5	503.0	504.5	503.5
55°	480.0	466.5	465.5	463.5	468.0
57.5°	436.5	423.5	424.5	425.5	432.0
60°	400.6	383.1	384.1	385.1	393.1
62.5°	356.1	341.6	341.1	342.6	344.6
65°	317.2	296.7	296.7	298.7	306.2
67.5°	267.7	255.2	254.7	257.2	260.2
70°	224.8	210.3	210.3	213.3	218.3
72.5°	181.8	169.8	167.8	172.3	175.8
75°	140.8	129.4	126.9	129.9	133.9
77.5°	100.9	93.4	91.4	94.4	95.4
80°	66.9	60.4	59.9	61.4	62.4
82.5°	38.5	34.5	33.0	34.5	35.0
85°	17.0	15.5	15.0	14.5	16.0
87.5°	4.0	4.0	4.0	4.0	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)