

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P557857

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-84-EDD**

Issue Date: 7/16/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P557857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-257-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FUSL-12-4-LD4-3HI-40-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

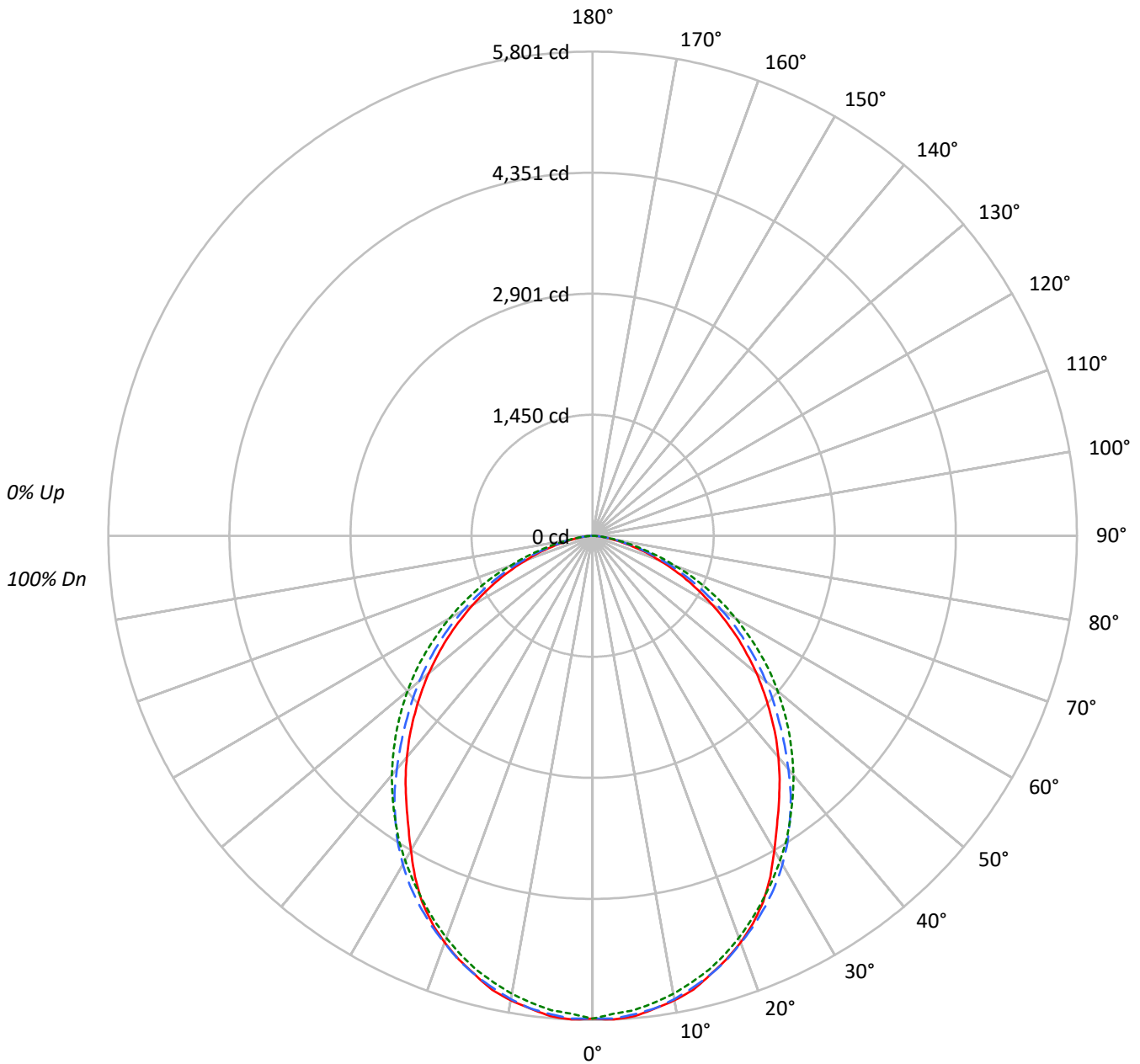
Lumens per Lamp: N/A
Luminaire Lumens: 13377.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (A_{in}): 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: 25 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73								
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63								
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54								
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47								
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42								
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37								
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34								
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30								
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15568	15568	15568
5°	15609	15543	15411
10°	15444	15401	15225
15°	15170	15170	14996
20°	14848	14868	14677
25°	14359	14538	14307
30°	13522	14130	13957
35°	12777	13544	13565
40°	12156	12812	13147
45°	11461	12036	12653
50°	10728	11342	12114
55°	9895	10552	11459
60°	8911	9629	10658
65°	7868	8562	9694
70°	6557	7292	8236
75°	5153	5823	6447
80°	3685	4099	4547
85°	2402	2402	2263



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	544.7	4.1
10°-20°	1530.2	11.4
20°-30°	2236.1	16.7
30°-40°	2538.2	19.0
40°-50°	2450.3	18.3
50°-60°	2021.3	15.1
60°-70°	1346.0	10.1
70°-80°	602.3	4.5
80°-90°	107.8	0.8
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°	4311.0	32.2
0°-40°	6849.3	51.2
0°-60°	11320.9	84.6
0°-90°	13377.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13377.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5785	5785	5785	5785	5785	
5°	5778	5776	5754	5723	5705	547
15°	5445	5458	5445	5421	5383	1535
25°	4836	4874	4896	4861	4818	2215
35°	3889	3943	4123	4145	4129	2437
45°	3012	3063	3163	3307	3325	2324
55°	2109	2145	2249	2374	2442	1883
65°	1236	1269	1345	1440	1522	1225
75°	496	522	560	587	620	542
85°	78	78	78	73	73	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5785.2	5785.2	5785.2	5785.2	5785.2
2.5°	5800.8	5803.0	5789.7	5754.1	5731.9
5°	5778.5	5776.3	5754.1	5723.0	5705.2
7.5°	5714.1	5718.5	5711.9	5667.4	5643.0
10°	5651.9	5654.1	5636.3	5600.7	5571.8
12.5°	5571.8	5569.6	5545.2	5527.4	5480.7
15°	5445.2	5458.5	5445.2	5420.7	5382.9
17.5°	5322.9	5322.9	5331.8	5289.6	5260.7
20°	5185.1	5191.8	5191.8	5158.5	5125.1
22.5°	5025.1	5045.1	5051.8	5016.2	4976.2
25°	4836.2	4874.0	4896.2	4860.6	4818.4
27.5°	4607.3	4665.1	4731.7	4705.1	4658.4
30°	4351.7	4436.1	4547.3	4525.0	4491.7
32.5°	4109.4	4193.9	4347.2	4338.3	4320.6
35°	3889.4	3942.7	4122.8	4145.0	4129.4
37.5°	3680.5	3729.4	3898.3	3949.4	3936.1
40°	3460.5	3513.8	3647.1	3738.3	3742.7
42.5°	3242.6	3293.8	3402.7	3533.8	3533.8
45°	3011.5	3062.6	3162.6	3307.1	3324.9
47.5°	2784.8	2838.2	2935.9	3080.4	3109.3
50°	2562.6	2611.5	2709.2	2849.3	2893.7
52.5°	2331.4	2384.8	2480.3	2609.2	2673.7
55°	2109.2	2144.7	2249.2	2373.6	2442.5
57.5°	1878.0	1911.4	2029.2	2135.8	2207.0
60°	1655.8	1698.0	1789.1	1898.0	1980.3
62.5°	1442.4	1486.9	1564.7	1660.2	1753.6
65°	1235.7	1269.1	1344.6	1440.2	1522.4
67.5°	1035.7	1064.6	1140.2	1206.8	1293.5
70°	833.4	871.2	926.8	991.2	1046.8
72.5°	671.2	686.8	733.4	780.1	837.9
75°	495.6	522.3	560.1	586.7	620.1
77.5°	355.6	371.2	393.4	415.6	446.7
80°	237.8	244.5	264.5	268.9	293.4
82.5°	144.5	148.9	153.4	155.6	164.5
85°	77.8	77.8	77.8	73.3	73.3
87.5°	44.5	44.5	37.8	31.1	22.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)