

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: P557734

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-87-EDD-90**

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: P557734
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-30-UNV-93-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

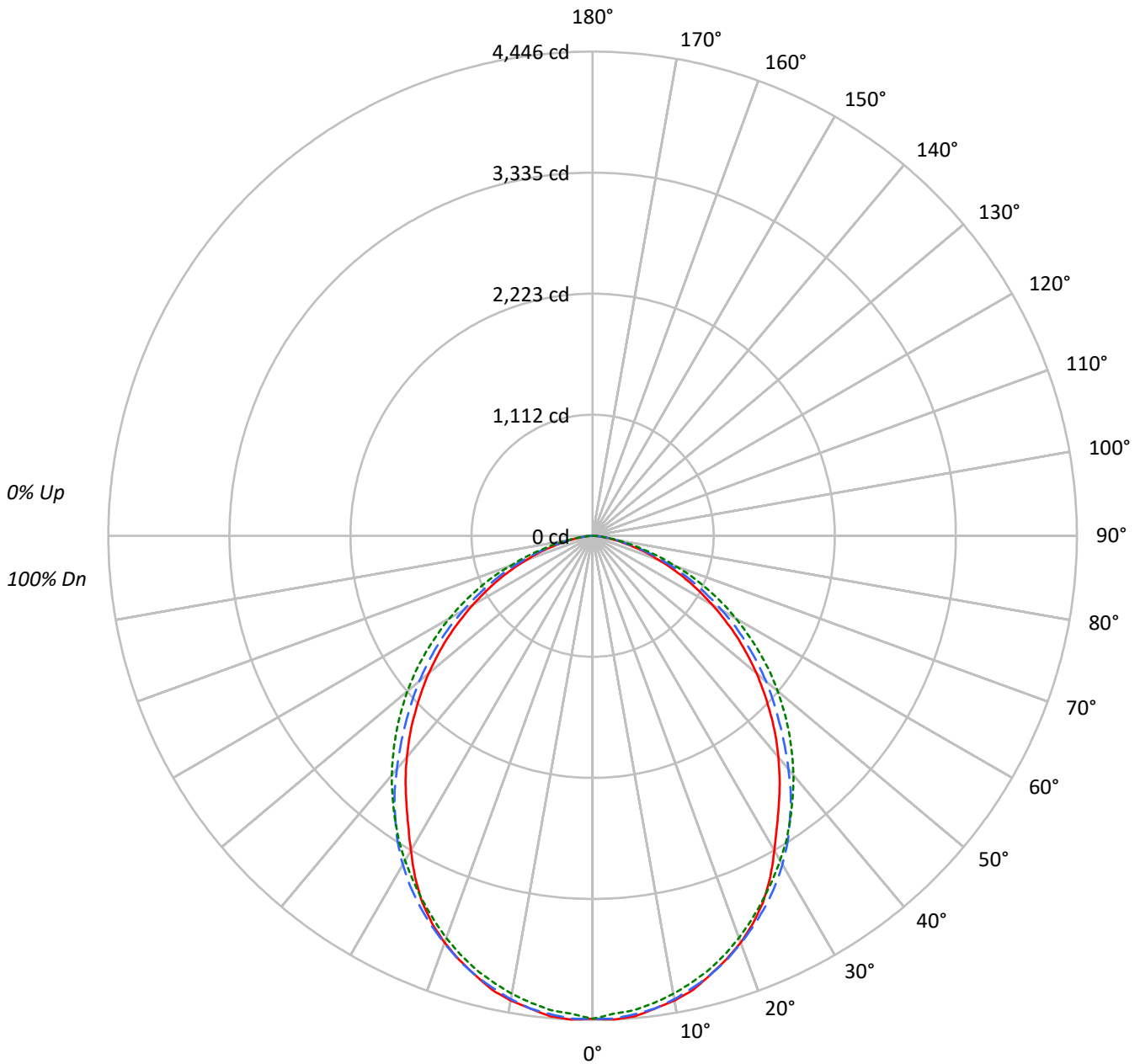
Lumens per Lamp: N/A
Luminaire Lumens: 10254.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11933	11933	11933
5°	11965	11914	11813
10°	11838	11805	11670
15°	11628	11628	11495
20°	11382	11397	11250
25°	11007	11144	10967
30°	10365	10831	10699
35°	9794	10382	10399
40°	9318	9821	10078
45°	8785	9226	9699
50°	8223	8694	9286
55°	7585	8089	8784
60°	6831	7381	8169
65°	6031	6563	7431
70°	5027	5589	6313
75°	3950	4463	4942
80°	2825	3141	3485
85°	1840	1840	1735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.5	4.1
10°-20°	1173.0	11.4
20°-30°	1714.1	16.7
30°-40°	1945.7	19.0
40°-50°	1878.2	18.3
50°-60°	1549.4	15.1
60°-70°	1031.8	10.1
70°-80°	461.7	4.5
80°-90°	82.6	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°	3304.6	32.2
0°-40°	5250.2	51.2
0°-60°	8677.9	84.6
0°-90°	10254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10254.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4435	4435	4435	4435	4435	
5°	4430	4428	4411	4387	4373	419
15°	4174	4184	4174	4155	4126	1177
25°	3707	3736	3753	3726	3694	1698
35°	2981	3022	3160	3177	3165	1868
45°	2308	2348	2424	2535	2549	1781
55°	1617	1644	1724	1820	1872	1443
65°	947	973	1031	1104	1167	939
75°	380	400	429	450	475	415
85°	60	60	60	56	56	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4434.6	4434.6	4434.6	4434.6	4434.6
2.5°	4446.5	4448.2	4438.0	4410.7	4393.7
5°	4429.5	4427.8	4410.7	4386.9	4373.3
7.5°	4380.1	4383.5	4378.4	4344.3	4325.6
10°	4332.4	4334.1	4320.4	4293.2	4271.0
12.5°	4271.0	4269.3	4250.6	4237.0	4201.2
15°	4173.9	4184.2	4173.9	4155.2	4126.2
17.5°	4080.2	4080.2	4087.0	4054.7	4032.5
20°	3974.6	3979.7	3979.7	3954.2	3928.6
22.5°	3851.9	3867.3	3872.4	3845.1	3814.5
25°	3707.1	3736.1	3753.1	3725.9	3693.5
27.5°	3531.7	3576.0	3627.1	3606.6	3570.8
30°	3335.7	3400.5	3485.7	3468.6	3443.1
32.5°	3150.0	3214.8	3332.3	3325.5	3311.9
35°	2981.4	3022.3	3160.3	3177.3	3165.4
37.5°	2821.2	2858.7	2988.2	3027.4	3017.2
40°	2652.6	2693.5	2795.7	2865.5	2868.9
42.5°	2485.6	2524.8	2608.3	2708.8	2708.8
45°	2308.4	2347.6	2424.3	2535.0	2548.7
47.5°	2134.7	2175.6	2250.5	2361.3	2383.4
50°	1964.3	2001.8	2076.7	2184.1	2218.1
52.5°	1787.1	1828.0	1901.3	2000.1	2049.5
55°	1616.8	1644.0	1724.1	1819.5	1872.3
57.5°	1439.6	1465.1	1555.4	1637.2	1691.7
60°	1269.2	1301.6	1371.4	1454.9	1517.9
62.5°	1105.7	1139.7	1199.4	1272.6	1344.2
65°	947.2	972.8	1030.7	1104.0	1167.0
67.5°	793.9	816.0	874.0	925.1	991.5
70°	638.9	667.8	710.4	759.8	802.4
72.5°	514.5	526.4	562.2	598.0	642.3
75°	379.9	400.4	429.3	449.8	475.3
77.5°	272.6	284.5	301.5	318.6	342.4
80°	182.3	187.4	202.7	206.1	224.9
82.5°	110.7	114.1	117.6	119.3	126.1
85°	59.6	59.6	59.6	56.2	56.2
87.5°	34.1	34.1	29.0	23.9	17.0
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)