

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: P557865

Luminaire Tested: **FUSL-12-4-LD4-3HI-40-UNV-93-88-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: P557865
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-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

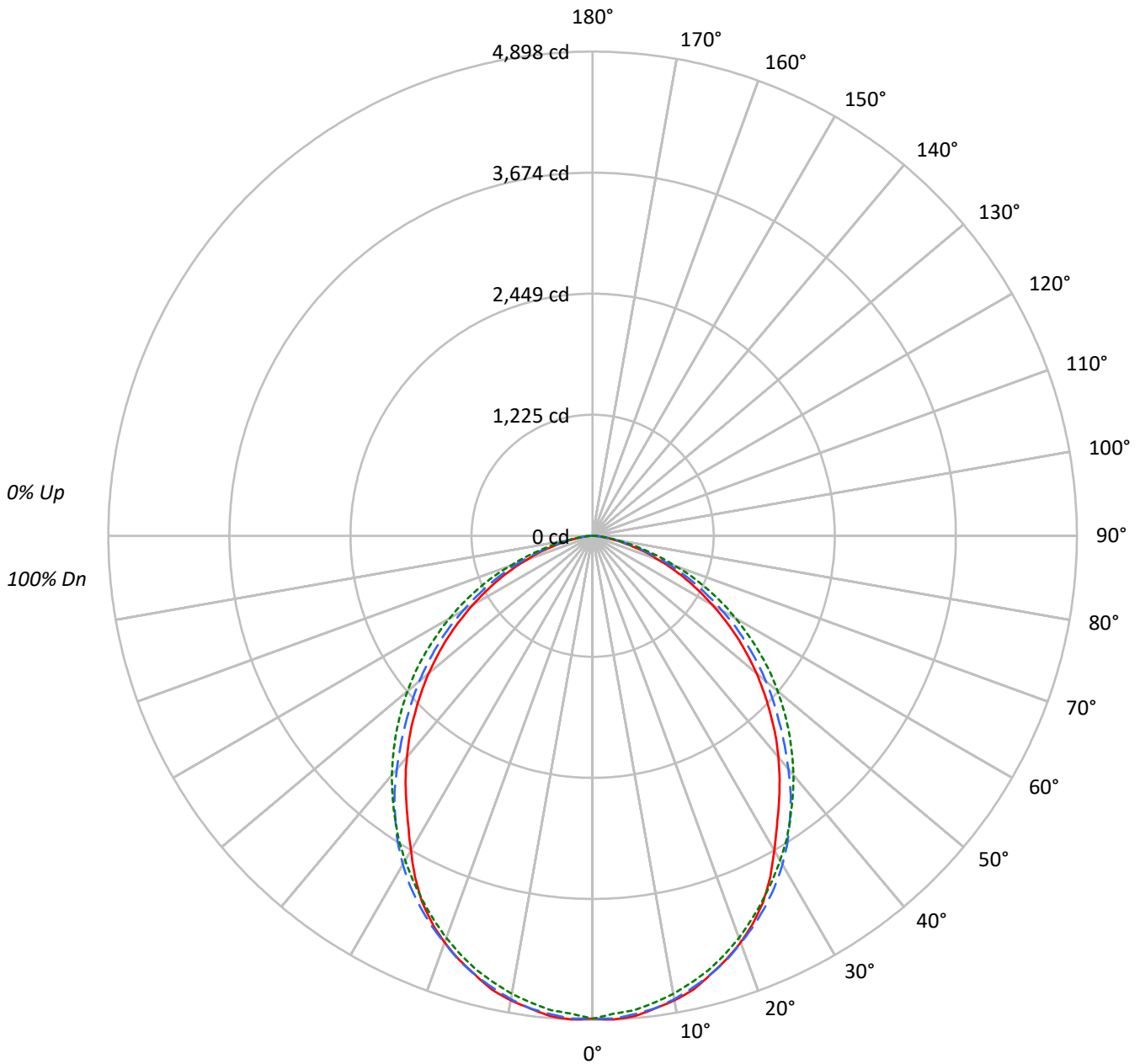
Lumens per Lamp: N/A
Luminaire Lumens: 11295.0 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
RC	80									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°	13145	13145	13145
5°	13180	13124	13012
10°	13040	13004	12855
15°	12809	12809	12662
20°	12537	12554	12392
25°	12125	12275	12080
30°	11417	11930	11785
35°	10789	11436	11454
40°	10264	10818	11101
45°	9677	10163	10684
50°	9058	9577	10229
55°	8355	8910	9676
60°	7525	8131	8999
65°	6644	7229	8185
70°	5537	6157	6954
75°	4351	4917	5444
80°	3112	3460	3839
85°	2029	2029	1911



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	459.9	4.1
10°-20°	1292.0	11.4
20°-30°	1888.1	16.7
30°-40°	2143.2	19.0
40°-50°	2068.9	18.3
50°-60°	1706.7	15.1
60°-70°	1136.5	10.1
70°-80°	508.6	4.5
80°-90°	91.0	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°	3640.1	32.2
0°-40°	5783.2	51.2
0°-60°	9558.9	84.6
0°-90°	11295.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11295.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4885	4885	4885	4885	4885	
5°	4879	4877	4858	4832	4817	462
15°	4598	4609	4598	4577	4545	1296
25°	4084	4115	4134	4104	4068	1870
35°	3284	3329	3481	3500	3487	2058
45°	2543	2586	2670	2792	2807	1962
55°	1781	1811	1899	2004	2062	1590
65°	1043	1072	1135	1216	1286	1035
75°	418	441	473	495	524	458
85°	66	66	66	62	62	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4884.8	4884.8	4884.8	4884.8	4884.8
2.5°	4897.9	4899.8	4888.5	4858.5	4839.8
5°	4879.2	4877.3	4858.5	4832.3	4817.2
7.5°	4824.7	4828.5	4822.9	4785.3	4764.7
10°	4772.2	4774.1	4759.1	4729.0	4704.6
12.5°	4704.6	4702.8	4682.1	4667.1	4627.7
15°	4597.7	4608.9	4597.7	4577.0	4545.1
17.5°	4494.5	4494.5	4502.0	4466.3	4441.9
20°	4378.1	4383.7	4383.7	4355.6	4327.4
22.5°	4243.0	4259.9	4265.5	4235.5	4201.7
25°	4083.5	4115.4	4134.2	4104.1	4068.5
27.5°	3890.2	3939.0	3995.3	3972.8	3933.4
30°	3674.4	3745.7	3839.5	3820.8	3792.6
32.5°	3469.8	3541.1	3670.6	3663.1	3648.1
35°	3284.1	3329.1	3481.1	3499.9	3486.7
37.5°	3107.7	3148.9	3291.6	3334.7	3323.5
40°	2921.9	2966.9	3079.5	3156.4	3160.2
42.5°	2738.0	2781.1	2873.1	2983.8	2983.8
45°	2542.8	2586.0	2670.4	2792.4	2807.4
47.5°	2351.4	2396.4	2479.0	2601.0	2625.4
50°	2163.7	2205.0	2287.6	2405.8	2443.3
52.5°	1968.6	2013.6	2094.3	2203.1	2257.6
55°	1780.9	1810.9	1899.1	2004.2	2062.4
57.5°	1585.7	1613.9	1713.3	1803.4	1863.5
60°	1398.1	1433.7	1510.7	1602.6	1672.1
62.5°	1217.9	1255.4	1321.1	1401.8	1480.6
65°	1043.4	1071.5	1135.3	1216.0	1285.5
67.5°	874.5	898.9	962.7	1019.0	1092.2
70°	703.7	735.6	782.5	837.0	883.9
72.5°	566.7	579.9	619.3	658.7	707.5
75°	418.5	441.0	472.9	495.4	523.6
77.5°	300.3	313.4	332.2	350.9	377.2
80°	200.8	206.4	223.3	227.1	247.7
82.5°	122.0	125.7	129.5	131.4	138.9
85°	65.7	65.7	65.7	61.9	61.9
87.5°	37.5	37.5	31.9	26.3	18.8
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)