

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: P557453

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-96-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: P557453
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-LD4-2STD-30-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

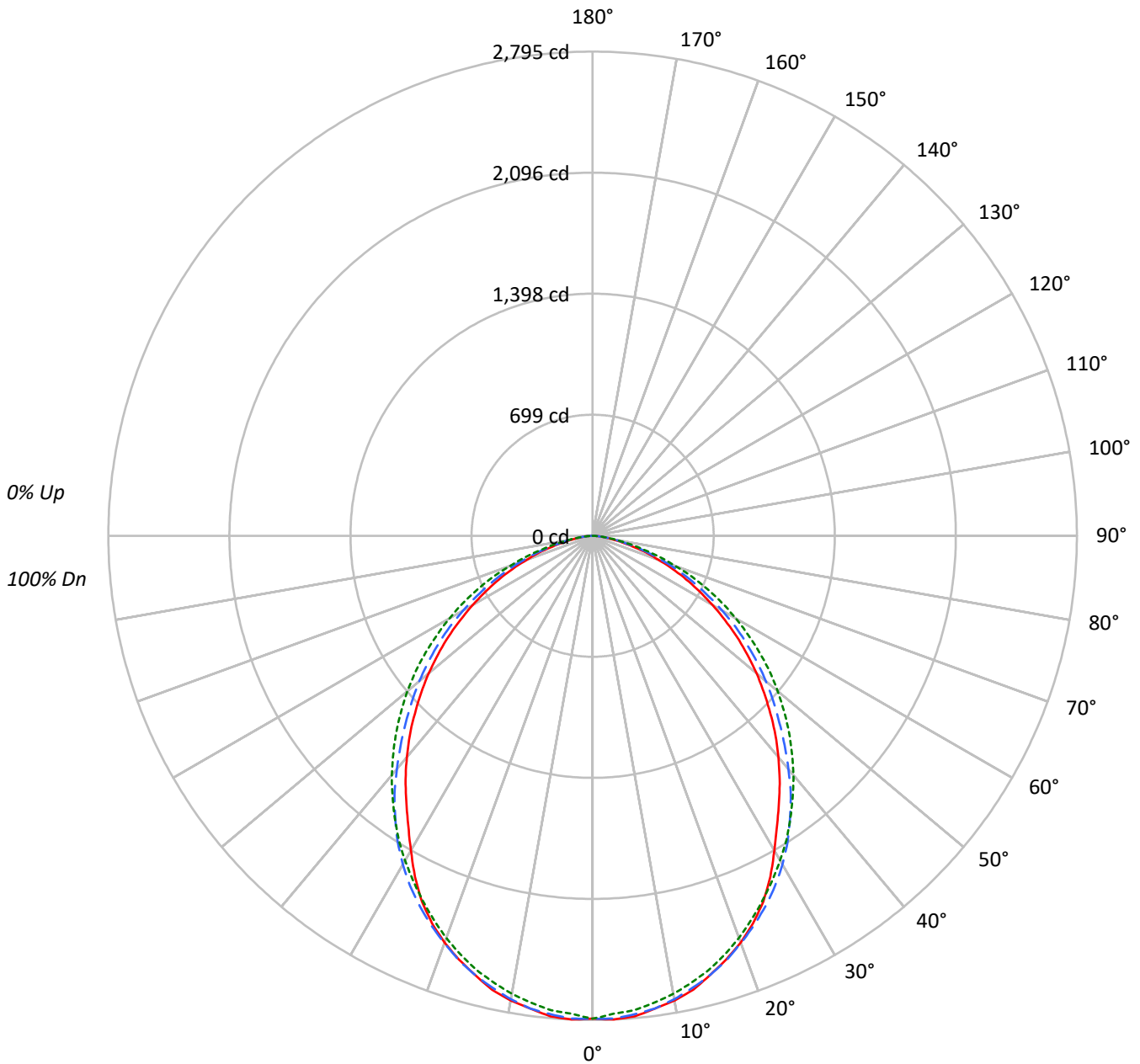
Lumens per Lamp: N/A
Luminaire Lumens: 6446.0 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	7502	7502	7502
5°	7522	7490	7426
10°	7442	7421	7336
15°	7310	7310	7226
20°	7155	7164	7072
25°	6919	7005	6894
30°	6516	6809	6725
35°	6157	6526	6537
40°	5858	6174	6335
45°	5523	5800	6097
50°	5169	5465	5838
55°	4768	5085	5522
60°	4294	4640	5135
65°	3792	4125	4671
70°	3160	3514	3969
75°	2483	2806	3107
80°	1776	1974	2191
85°	1158	1158	1090



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.5	4.1
10°-20°	737.4	11.4
20°-30°	1077.5	16.7
30°-40°	1223.1	19.0
40°-50°	1180.7	18.3
50°-60°	974.0	15.1
60°-70°	648.6	10.1
70°-80°	290.3	4.5
80°-90°	51.9	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°	2077.4	32.2
0°-40°	3300.5	51.2
0°-60°	5455.2	84.6
0°-90°	6446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6446.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2788	2788	2788	2788	2788	
5°	2784	2783	2773	2758	2749	264
15°	2624	2630	2624	2612	2594	740
25°	2330	2349	2359	2342	2322	1067
35°	1874	1900	1987	1997	1990	1174
45°	1451	1476	1524	1594	1602	1120
55°	1016	1034	1084	1144	1177	907
65°	596	612	648	694	734	590
75°	239	252	270	283	299	261
85°	38	38	38	35	35	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2787.7	2787.7	2787.7	2787.7	2787.7
2.5°	2795.2	2796.3	2789.9	2772.7	2762.0
5°	2784.5	2783.4	2772.7	2757.7	2749.2
7.5°	2753.5	2755.6	2752.4	2731.0	2719.2
10°	2723.5	2724.5	2716.0	2698.8	2684.9
12.5°	2684.9	2683.8	2672.1	2663.5	2641.0
15°	2623.9	2630.3	2623.9	2612.1	2593.9
17.5°	2565.0	2565.0	2569.3	2548.9	2535.0
20°	2498.6	2501.8	2501.8	2485.7	2469.7
22.5°	2421.5	2431.1	2434.3	2417.2	2397.9
25°	2330.4	2348.6	2359.3	2342.2	2321.9
27.5°	2220.1	2248.0	2280.1	2267.2	2244.7
30°	2097.0	2137.7	2191.2	2180.5	2164.4
32.5°	1980.2	2020.9	2094.8	2090.5	2082.0
35°	1874.2	1899.9	1986.6	1997.4	1989.9
37.5°	1773.5	1797.1	1878.5	1903.1	1896.7
40°	1667.5	1693.2	1757.5	1801.4	1803.5
42.5°	1562.5	1587.2	1639.7	1702.8	1702.8
45°	1451.2	1475.8	1524.0	1593.6	1602.2
47.5°	1341.9	1367.6	1414.7	1484.4	1498.3
50°	1234.8	1258.4	1305.5	1373.0	1394.4
52.5°	1123.4	1149.1	1195.2	1257.3	1288.4
55°	1016.3	1033.5	1083.8	1143.8	1177.0
57.5°	905.0	921.0	977.8	1029.2	1063.5
60°	797.9	818.2	862.1	914.6	954.2
62.5°	695.1	716.5	754.0	800.0	845.0
65°	595.5	611.5	647.9	694.0	733.6
67.5°	499.1	513.0	549.4	581.5	623.3
70°	401.6	419.8	446.6	477.7	504.4
72.5°	323.4	330.9	353.4	375.9	403.8
75°	238.8	251.7	269.9	282.7	298.8
77.5°	171.4	178.9	189.6	200.3	215.3
80°	114.6	117.8	127.4	129.6	141.4
82.5°	69.6	71.8	73.9	75.0	79.3
85°	37.5	37.5	37.5	35.3	35.3
87.5°	21.4	21.4	18.2	15.0	10.7
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)