

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: P556145

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-84-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: P556145
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-LD4-1HI-30-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

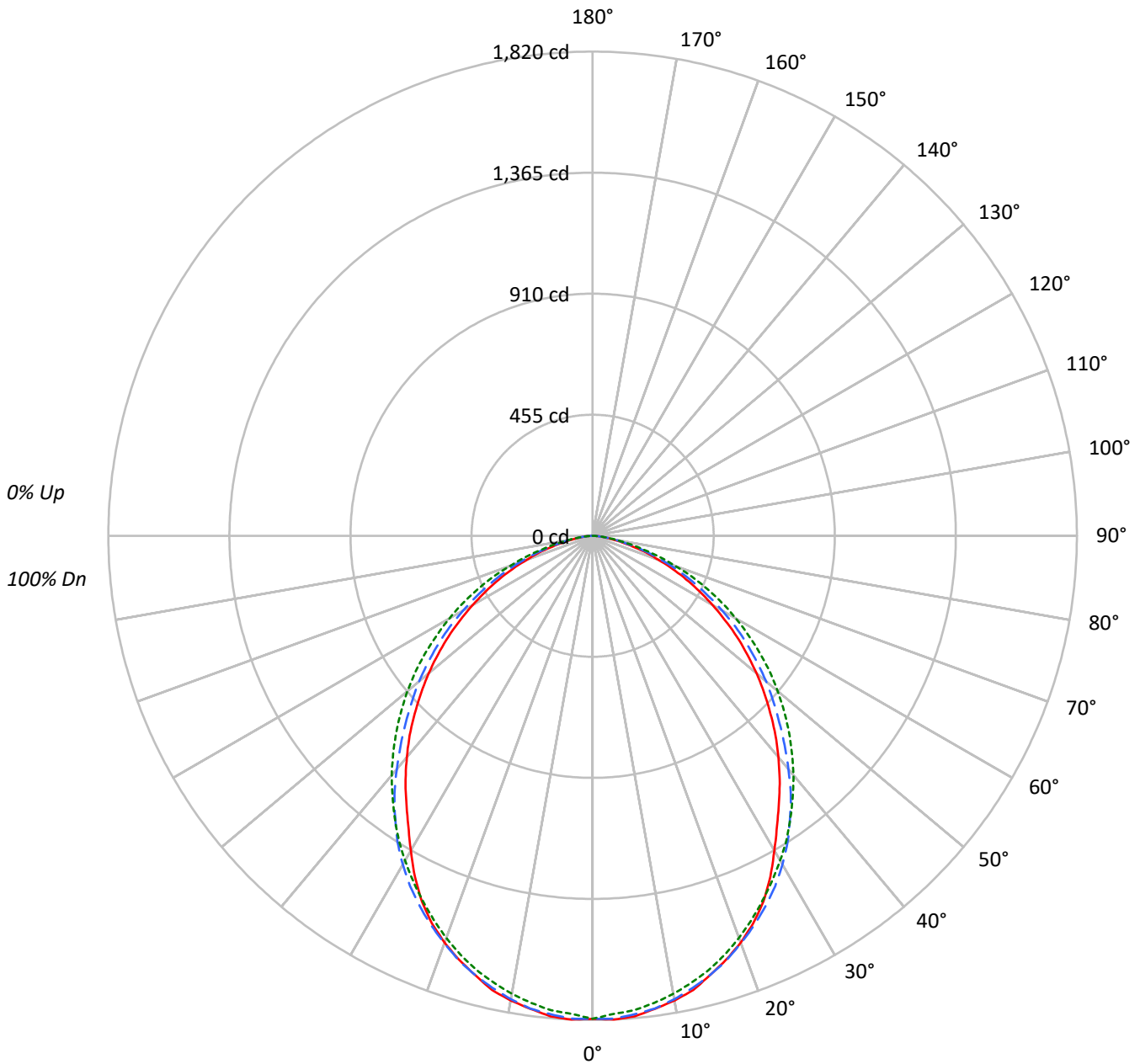
Lumens per Lamp: N/A
Luminaire Lumens: 4198.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
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: 25 FT

TEST NUMBER: P556145

CATALOG NUMBER: FUSL-12-4-LD4-1HI-30-UNV-80-84-EDD

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°	4885	4885	4885
5°	4898	4878	4836
10°	4847	4833	4778
15°	4761	4761	4706
20°	4660	4666	4606
25°	4506	4562	4490
30°	4244	4434	4380
35°	4010	4250	4257
40°	3815	4021	4126
45°	3597	3777	3971
50°	3367	3559	3802
55°	3105	3311	3596
60°	2796	3022	3344
65°	2469	2687	3042
70°	2058	2288	2585
75°	1617	1828	2023
80°	1156	1286	1427
85°	753	753	710



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.9	4.1
10°-20°	480.2	11.4
20°-30°	701.8	16.7
30°-40°	796.6	19.0
40°-50°	769.0	18.3
50°-60°	634.3	15.1
60°-70°	422.4	10.1
70°-80°	189.0	4.5
80°-90°	33.8	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°	1352.9	32.2
0°-40°	2149.5	51.2
0°-60°	3552.8	84.6
0°-90°	4198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4198.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1816	1816	1816	1816	1816	
5°	1813	1813	1806	1796	1790	172
15°	1709	1713	1709	1701	1689	482
25°	1518	1530	1536	1525	1512	695
35°	1221	1237	1294	1301	1296	765
45°	945	961	992	1038	1043	729
55°	662	673	706	745	766	591
65°	388	398	422	452	478	385
75°	156	164	176	184	195	170
85°	24	24	24	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1815.5	1815.5	1815.5	1815.5	1815.5
2.5°	1820.4	1821.1	1816.9	1805.8	1798.8
5°	1813.4	1812.7	1805.8	1796.0	1790.4
7.5°	1793.2	1794.6	1792.5	1778.6	1770.9
10°	1773.7	1774.4	1768.8	1757.6	1748.6
12.5°	1748.6	1747.9	1740.2	1734.6	1720.0
15°	1708.8	1713.0	1708.8	1701.1	1689.3
17.5°	1670.5	1670.5	1673.2	1660.0	1650.9
20°	1627.2	1629.3	1629.3	1618.8	1608.4
22.5°	1577.0	1583.3	1585.4	1574.2	1561.6
25°	1517.7	1529.6	1536.5	1525.4	1512.1
27.5°	1445.9	1464.0	1484.9	1476.6	1461.9
30°	1365.7	1392.2	1427.0	1420.1	1409.6
32.5°	1289.6	1316.1	1364.3	1361.5	1355.9
35°	1220.6	1237.3	1293.8	1300.8	1295.9
37.5°	1155.0	1170.4	1223.4	1239.4	1235.2
40°	1086.0	1102.7	1144.6	1173.2	1174.5
42.5°	1017.6	1033.7	1067.8	1109.0	1109.0
45°	945.1	961.1	992.5	1037.8	1043.4
47.5°	873.9	890.7	921.4	966.7	975.8
50°	804.2	819.5	850.2	894.2	908.1
52.5°	731.7	748.4	778.4	818.8	839.1
55°	661.9	673.1	705.8	744.9	766.5
57.5°	589.4	599.8	636.8	670.3	692.6
60°	519.6	532.9	561.5	595.6	621.4
62.5°	452.7	466.6	491.0	521.0	550.3
65°	387.8	398.3	422.0	452.0	477.8
67.5°	325.0	334.1	357.8	378.7	405.9
70°	261.6	273.4	290.8	311.1	328.5
72.5°	210.6	215.5	230.2	244.8	262.9
75°	155.5	163.9	175.8	184.1	194.6
77.5°	111.6	116.5	123.5	130.4	140.2
80°	74.6	76.7	83.0	84.4	92.1
82.5°	45.3	46.7	48.1	48.8	51.6
85°	24.4	24.4	24.4	23.0	23.0
87.5°	13.9	13.9	11.9	9.8	7.0
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)