

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: P556202

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-93-94-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: P556202
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-93-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

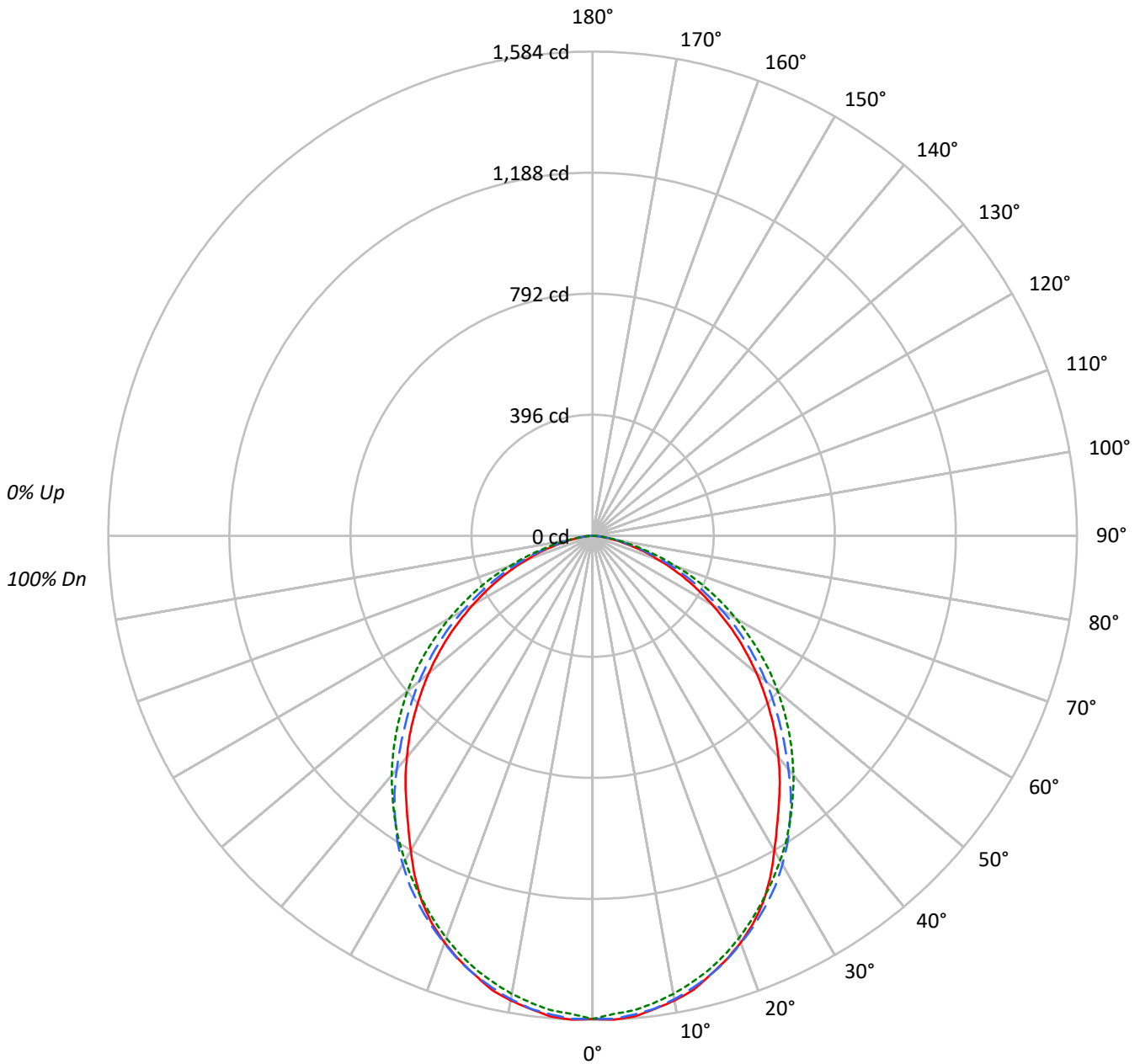
Lumens per Lamp: N/A
Luminaire Lumens: 3654.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	4253	4253	4253
5°	4264	4246	4210
10°	4218	4207	4159
15°	4144	4144	4096
20°	4056	4061	4009
25°	3922	3971	3908
30°	3694	3860	3812
35°	3490	3700	3706
40°	3320	3499	3591
45°	3131	3288	3456
50°	2930	3098	3309
55°	2703	2883	3130
60°	2434	2630	2911
65°	2149	2339	2648
70°	1792	1992	2249
75°	1408	1591	1761
80°	1007	1119	1241
85°	655	655	618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.8	4.1
10°-20°	418.0	11.4
20°-30°	610.8	16.7
30°-40°	693.3	19.0
40°-50°	669.3	18.3
50°-60°	552.1	15.1
60°-70°	367.7	10.1
70°-80°	164.5	4.5
80°-90°	29.4	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°	1177.6	32.2
0°-40°	1870.9	51.2
0°-60°	3092.4	84.6
0°-90°	3654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1580	1580	1580	1580	1580	
5°	1578	1578	1572	1563	1558	149
15°	1487	1491	1487	1481	1470	419
25°	1321	1331	1337	1328	1316	605
35°	1062	1077	1126	1132	1128	666
45°	823	837	864	903	908	635
55°	576	586	614	648	667	514
65°	338	347	367	393	416	335
75°	135	143	153	160	169	148
85°	21	21	21	20	20	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1580.3	1580.3	1580.3	1580.3	1580.3
2.5°	1584.5	1585.1	1581.5	1571.8	1565.7
5°	1578.4	1577.8	1571.8	1563.3	1558.4
7.5°	1560.8	1562.0	1560.2	1548.1	1541.4
10°	1543.8	1544.4	1539.6	1529.9	1522.0
12.5°	1522.0	1521.4	1514.7	1509.8	1497.1
15°	1487.4	1491.0	1487.4	1480.7	1470.4
17.5°	1454.0	1454.0	1456.4	1444.9	1437.0
20°	1416.3	1418.2	1418.2	1409.1	1400.0
22.5°	1372.6	1378.1	1379.9	1370.2	1359.3
25°	1321.0	1331.4	1337.4	1327.7	1316.2
27.5°	1258.5	1274.3	1292.5	1285.2	1272.5
30°	1188.7	1211.8	1242.1	1236.0	1226.9
32.5°	1122.5	1145.6	1187.5	1185.0	1180.2
35°	1062.4	1077.0	1126.2	1132.2	1128.0
37.5°	1005.3	1018.7	1064.8	1078.8	1075.2
40°	945.2	959.8	996.2	1021.1	1022.3
42.5°	885.7	899.7	929.5	965.3	965.3
45°	822.6	836.6	863.9	903.4	908.2
47.5°	760.7	775.3	802.0	841.4	849.3
50°	700.0	713.3	740.0	778.3	790.4
52.5°	636.8	651.4	677.5	712.7	730.3
55°	576.1	585.8	614.4	648.4	667.2
57.5°	513.0	522.1	554.3	583.4	602.8
60°	452.3	463.8	488.7	518.5	540.9
62.5°	394.0	406.1	427.4	453.5	479.0
65°	337.5	346.6	367.3	393.4	415.9
67.5°	282.9	290.8	311.4	329.7	353.3
70°	227.7	238.0	253.2	270.8	285.9
72.5°	183.3	187.6	200.3	213.1	228.9
75°	135.4	142.7	153.0	160.3	169.4
77.5°	97.1	101.4	107.5	113.5	122.0
80°	65.0	66.8	72.2	73.5	80.1
82.5°	39.5	40.7	41.9	42.5	44.9
85°	21.2	21.2	21.2	20.0	20.0
87.5°	12.1	12.1	10.3	8.5	6.1
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)