

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: P556386

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-93-85-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: P556386
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-50-UNV-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

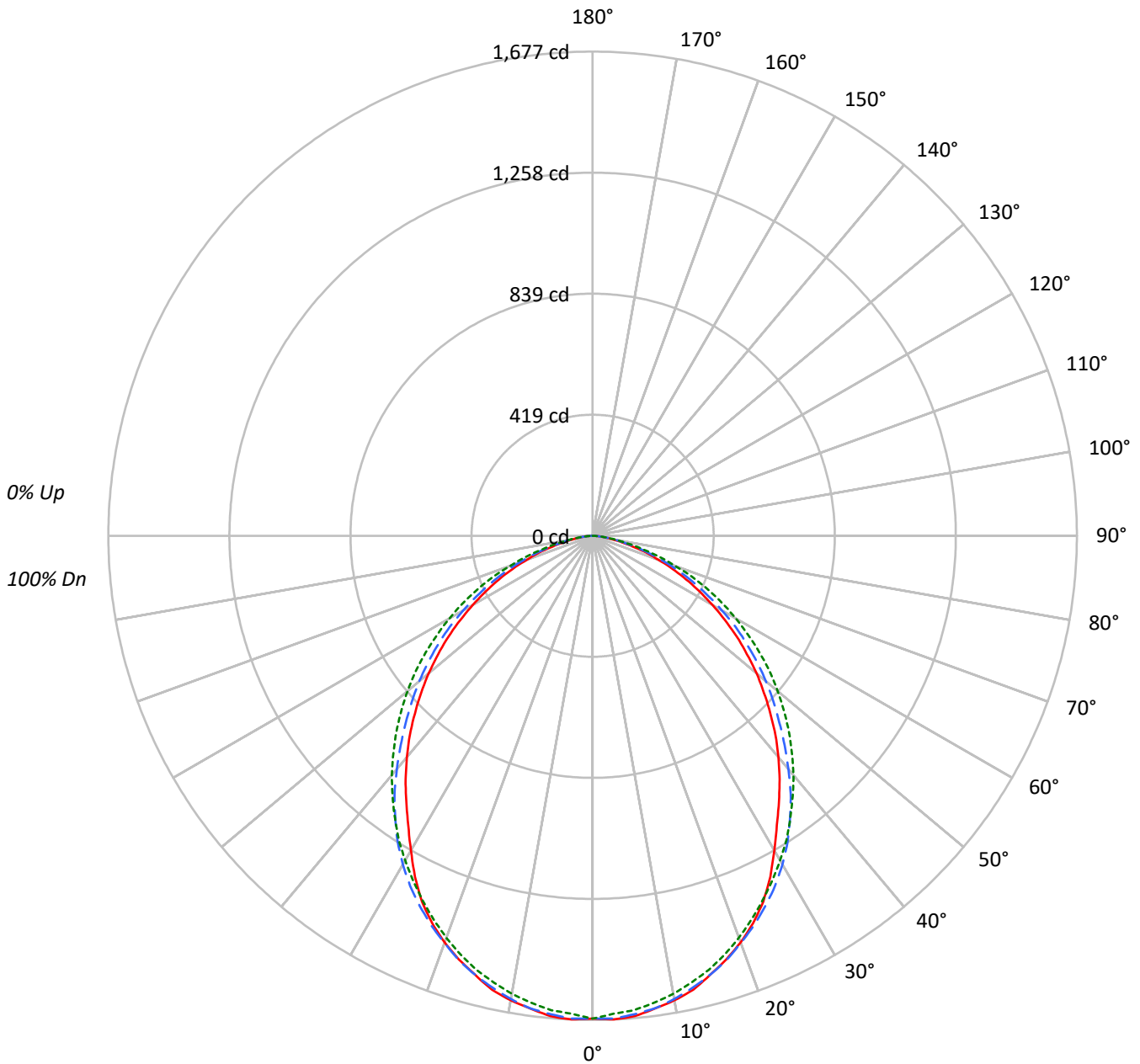
Lumens per Lamp: N/A
Luminaire Lumens: 3867.0 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556386

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-93-85-EDD-90

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°	4500	4500	4500
5°	4512	4493	4455
10°	4464	4452	4401
15°	4385	4385	4335
20°	4292	4298	4243
25°	4151	4203	4136
30°	3909	4085	4035
35°	3693	3915	3921
40°	3514	3704	3801
45°	3313	3479	3658
50°	3101	3279	3502
55°	2860	3050	3313
60°	2576	2784	3081
65°	2274	2475	2802
70°	1895	2108	2381
75°	1490	1683	1864
80°	1065	1185	1314
85°	695	695	655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	4.1
10°-20°	442.3	11.4
20°-30°	646.4	16.7
30°-40°	733.8	19.0
40°-50°	708.3	18.3
50°-60°	584.3	15.1
60°-70°	389.1	10.1
70°-80°	174.1	4.5
80°-90°	31.1	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°	1246.2	32.2
0°-40°	1980.0	51.2
0°-60°	3272.6	84.6
0°-90°	3867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1672	1672	1672	1672	1672	
5°	1670	1670	1663	1654	1649	158
15°	1574	1578	1574	1567	1556	444
25°	1398	1409	1415	1405	1393	640
35°	1124	1140	1192	1198	1194	704
45°	871	885	914	956	961	672
55°	610	620	650	686	706	544
65°	357	367	389	416	440	354
75°	143	151	162	170	179	157
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1672.4	1672.4	1672.4	1672.4	1672.4
2.5°	1676.9	1677.5	1673.7	1663.4	1657.0
5°	1670.5	1669.8	1663.4	1654.4	1649.2
7.5°	1651.8	1653.1	1651.2	1638.3	1631.3
10°	1633.8	1634.5	1629.3	1619.1	1610.7
12.5°	1610.7	1610.1	1603.0	1597.8	1584.4
15°	1574.1	1577.9	1574.1	1567.0	1556.1
17.5°	1538.7	1538.7	1541.3	1529.1	1520.8
20°	1498.9	1500.8	1500.8	1491.2	1481.6
22.5°	1452.6	1458.4	1460.4	1450.1	1438.5
25°	1398.0	1409.0	1415.4	1405.1	1392.9
27.5°	1331.9	1348.6	1367.8	1360.1	1346.6
30°	1258.0	1282.4	1314.5	1308.1	1298.5
32.5°	1187.9	1212.4	1256.7	1254.1	1249.0
35°	1124.3	1139.8	1191.8	1198.2	1193.7
37.5°	1063.9	1078.1	1126.9	1141.7	1137.8
40°	1000.3	1015.8	1054.3	1080.7	1081.9
42.5°	937.4	952.2	983.6	1021.5	1021.5
45°	870.6	885.3	914.3	956.0	961.2
47.5°	805.0	820.4	848.7	890.5	898.8
50°	740.8	754.9	783.2	823.7	836.5
52.5°	674.0	689.4	717.0	754.3	772.9
55°	609.7	620.0	650.2	686.2	706.1
57.5°	542.9	552.5	586.6	617.4	638.0
60°	478.6	490.9	517.2	548.7	572.5
62.5°	417.0	429.8	452.3	479.9	506.9
65°	357.2	366.9	388.7	416.3	440.1
67.5°	299.4	307.7	329.6	348.9	373.9
70°	240.9	251.9	267.9	286.5	302.6
72.5°	194.0	198.5	212.0	225.5	242.2
75°	143.3	151.0	161.9	169.6	179.3
77.5°	102.8	107.3	113.7	120.1	129.1
80°	68.7	70.7	76.5	77.7	84.8
82.5°	41.8	43.0	44.3	45.0	47.5
85°	22.5	22.5	22.5	21.2	21.2
87.5°	12.8	12.8	10.9	9.0	6.4
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)