

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: P556394

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-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: P556394
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-93-94-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

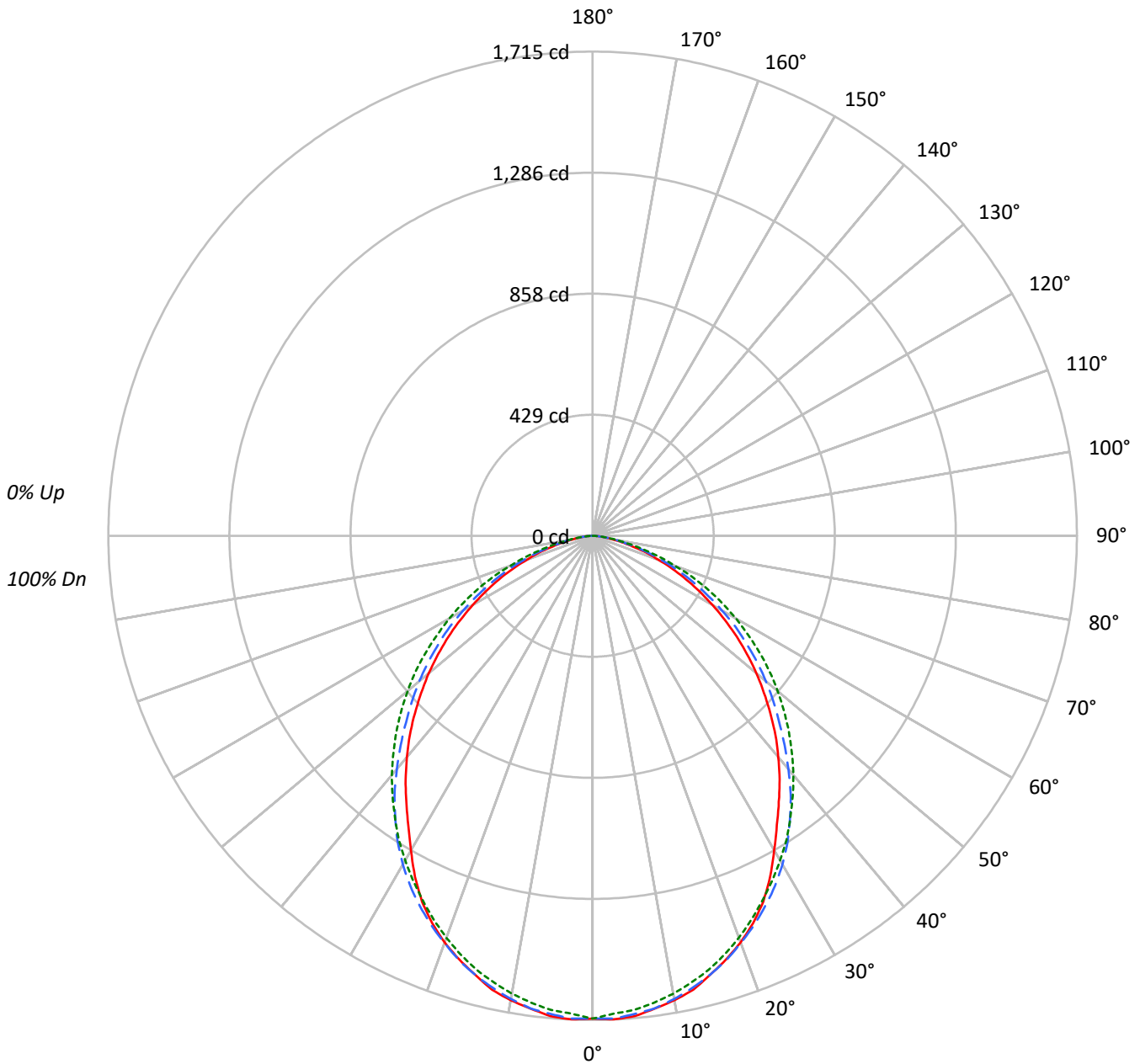
Lumens per Lamp: N/A
Luminaire Lumens: 3954.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	4602	4602	4602
5°	4614	4594	4555
10°	4565	4552	4500
15°	4484	4484	4433
20°	4389	4395	4338
25°	4244	4297	4229
30°	3997	4176	4126
35°	3777	4003	4010
40°	3593	3787	3886
45°	3387	3557	3740
50°	3171	3352	3581
55°	2925	3119	3387
60°	2634	2846	3150
65°	2326	2530	2865
70°	1939	2155	2434
75°	1523	1721	1906
80°	1089	1212	1344
85°	710	710	670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.0	4.1
10°-20°	452.3	11.4
20°-30°	661.0	16.7
30°-40°	750.3	19.0
40°-50°	724.3	18.3
50°-60°	597.5	15.1
60°-70°	397.9	10.1
70°-80°	178.0	4.5
80°-90°	31.9	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°	1274.3	32.2
0°-40°	2024.5	51.2
0°-60°	3346.2	84.6
0°-90°	3954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1708	1707	1701	1692	1686	162
15°	1610	1613	1610	1602	1591	454
25°	1430	1441	1447	1437	1424	655
35°	1150	1165	1219	1225	1221	720
45°	890	905	935	978	983	687
55°	623	634	665	702	722	556
65°	365	375	397	426	450	362
75°	146	154	166	173	183	160
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1710.0	1710.0	1710.0	1710.0	1710.0
2.5°	1714.6	1715.3	1711.3	1700.8	1694.2
5°	1708.0	1707.4	1700.8	1691.6	1686.4
7.5°	1689.0	1690.3	1688.3	1675.2	1668.0
10°	1670.6	1671.2	1666.0	1655.5	1646.9
12.5°	1646.9	1646.3	1639.1	1633.8	1620.0
15°	1609.5	1613.4	1609.5	1602.3	1591.1
17.5°	1573.4	1573.4	1576.0	1563.5	1555.0
20°	1532.6	1534.6	1534.6	1524.7	1514.9
22.5°	1485.3	1491.2	1493.2	1482.7	1470.9
25°	1429.5	1440.7	1447.2	1436.7	1424.2
27.5°	1361.8	1378.9	1398.6	1390.7	1376.9
30°	1286.3	1311.2	1344.1	1337.5	1327.7
32.5°	1214.7	1239.6	1285.0	1282.3	1277.1
35°	1149.6	1165.4	1218.6	1225.2	1220.6
37.5°	1087.9	1102.3	1152.3	1167.4	1163.4
40°	1022.8	1038.6	1078.0	1105.0	1106.3
42.5°	958.5	973.6	1005.8	1044.5	1044.5
45°	890.1	905.3	934.8	977.5	982.8
47.5°	823.1	838.9	867.8	910.5	919.1
50°	757.4	771.9	800.8	842.2	855.3
52.5°	689.1	704.9	733.1	771.2	790.3
55°	623.4	633.9	664.8	701.6	722.0
57.5°	555.1	565.0	599.8	631.3	652.3
60°	489.4	501.9	528.8	561.0	585.3
62.5°	426.4	439.5	462.5	490.7	518.3
65°	365.3	375.1	397.4	425.7	450.0
67.5°	306.1	314.7	337.0	356.7	382.3
70°	246.4	257.5	273.9	293.0	309.4
72.5°	198.4	203.0	216.8	230.6	247.7
75°	146.5	154.4	165.5	173.4	183.3
77.5°	105.1	109.7	116.3	122.8	132.0
80°	70.3	72.3	78.2	79.5	86.7
82.5°	42.7	44.0	45.3	46.0	48.6
85°	23.0	23.0	23.0	21.7	21.7
87.5°	13.1	13.1	11.2	9.2	6.6
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)