

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: P557226

Luminaire Tested: **FUSL-12-4-LD4-2LO-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: P557226
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-LD4-2LO-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

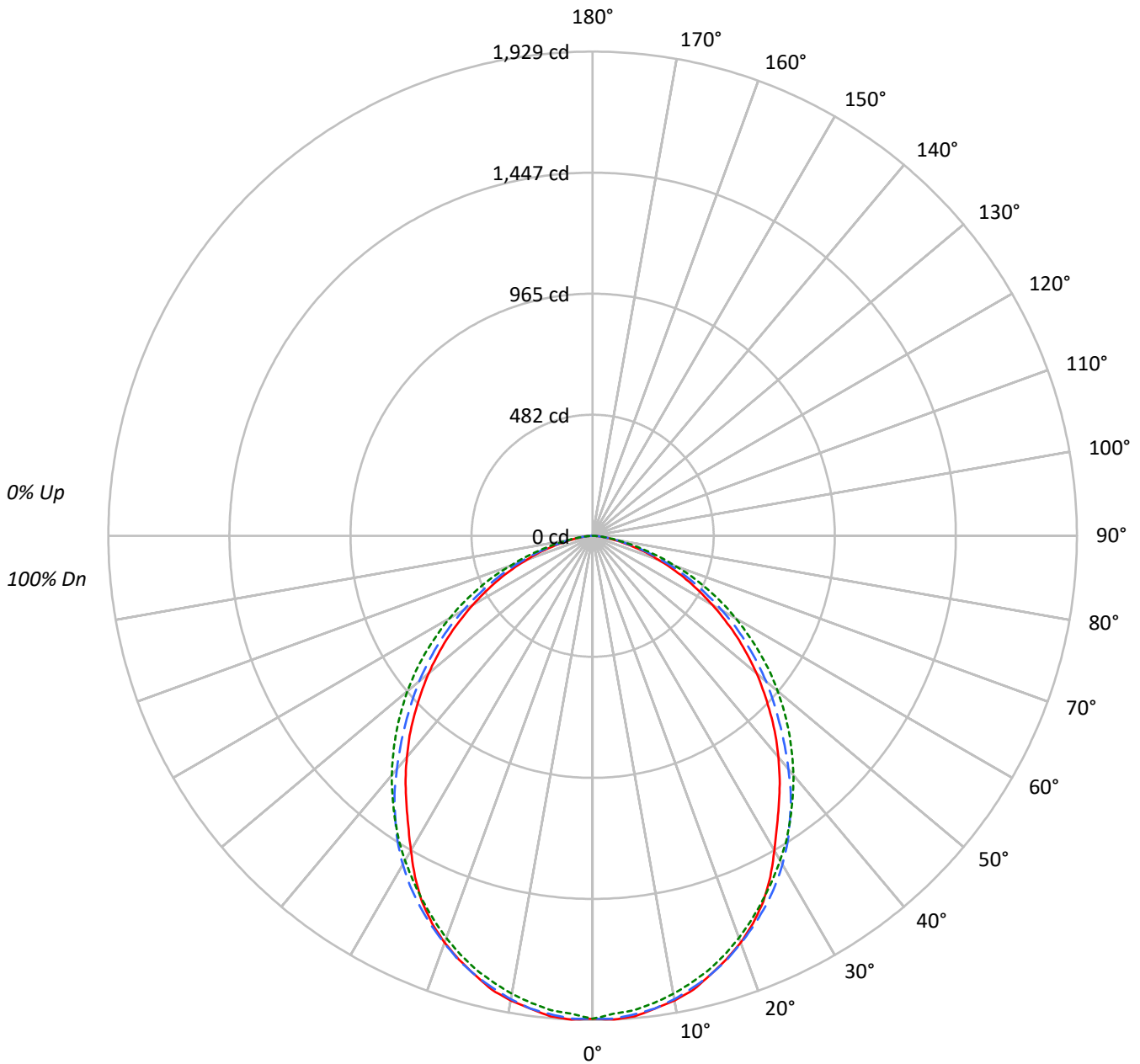
Lumens per Lamp: N/A
Luminaire Lumens: 4449.0 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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

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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°	5178	5178	5178
5°	5192	5169	5126
10°	5136	5122	5064
15°	5045	5045	4988
20°	4938	4945	4881
25°	4776	4835	4758
30°	4497	4699	4642
35°	4250	4504	4512
40°	4043	4261	4373
45°	3812	4003	4208
50°	3568	3772	4029
55°	3291	3509	3811
60°	2964	3202	3545
65°	2617	2848	3224
70°	2181	2425	2740
75°	1713	1937	2144
80°	1226	1364	1512
85°	800	800	753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.2	4.1
10°-20°	508.9	11.4
20°-30°	743.7	16.7
30°-40°	844.2	19.0
40°-50°	814.9	18.3
50°-60°	672.3	15.1
60°-70°	447.7	10.1
70°-80°	200.3	4.5
80°-90°	35.8	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°	1433.8	32.2
0°-40°	2278.0	51.2
0°-60°	3765.2	84.6
0°-90°	4449.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4449.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1924	1924	1924	1924	1924	
5°	1922	1921	1914	1903	1898	182
15°	1811	1815	1811	1803	1790	511
25°	1608	1621	1628	1617	1602	737
35°	1294	1311	1371	1379	1373	810
45°	1002	1019	1052	1100	1106	773
55°	702	713	748	789	812	626
65°	411	422	447	479	506	408
75°	165	174	186	195	206	180
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1924.1	1924.1	1924.1	1924.1	1924.1
2.5°	1929.3	1930.0	1925.6	1913.7	1906.3
5°	1921.9	1921.1	1913.7	1903.4	1897.5
7.5°	1900.4	1901.9	1899.7	1884.9	1876.8
10°	1879.7	1880.5	1874.6	1862.7	1853.1
12.5°	1853.1	1852.4	1844.2	1838.3	1822.8
15°	1811.0	1815.4	1811.0	1802.9	1790.3
17.5°	1770.3	1770.3	1773.3	1759.2	1749.6
20°	1724.5	1726.7	1726.7	1715.6	1704.5
22.5°	1671.3	1677.9	1680.1	1668.3	1655.0
25°	1608.4	1621.0	1628.4	1616.6	1602.5
27.5°	1532.3	1551.5	1573.7	1564.8	1549.3
30°	1447.3	1475.4	1512.4	1505.0	1493.9
32.5°	1366.7	1394.8	1445.8	1442.9	1437.0
35°	1293.6	1311.3	1371.2	1378.6	1373.4
37.5°	1224.1	1240.3	1296.5	1313.5	1309.1
40°	1150.9	1168.6	1213.0	1243.3	1244.8
42.5°	1078.5	1095.5	1131.7	1175.3	1175.3
45°	1001.6	1018.6	1051.8	1099.9	1105.8
47.5°	926.2	943.9	976.5	1024.5	1034.1
50°	852.3	868.5	901.1	947.6	962.4
52.5°	775.4	793.1	824.9	867.8	889.2
55°	701.5	713.3	748.0	789.4	812.4
57.5°	624.6	635.7	674.9	710.3	734.0
60°	550.7	564.7	595.0	631.3	658.6
62.5°	479.7	494.5	520.4	552.2	583.2
65°	411.0	422.1	447.2	479.0	506.3
67.5°	344.5	354.1	379.2	401.4	430.2
70°	277.2	289.8	308.2	329.7	348.2
72.5°	223.2	228.4	243.9	259.5	278.7
75°	164.8	173.7	186.3	195.1	206.2
77.5°	118.3	123.4	130.8	138.2	148.6
80°	79.1	81.3	88.0	89.4	97.6
82.5°	48.0	49.5	51.0	51.7	54.7
85°	25.9	25.9	25.9	24.4	24.4
87.5°	14.8	14.8	12.6	10.3	7.4
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)