

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: P556273

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-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: P556273
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

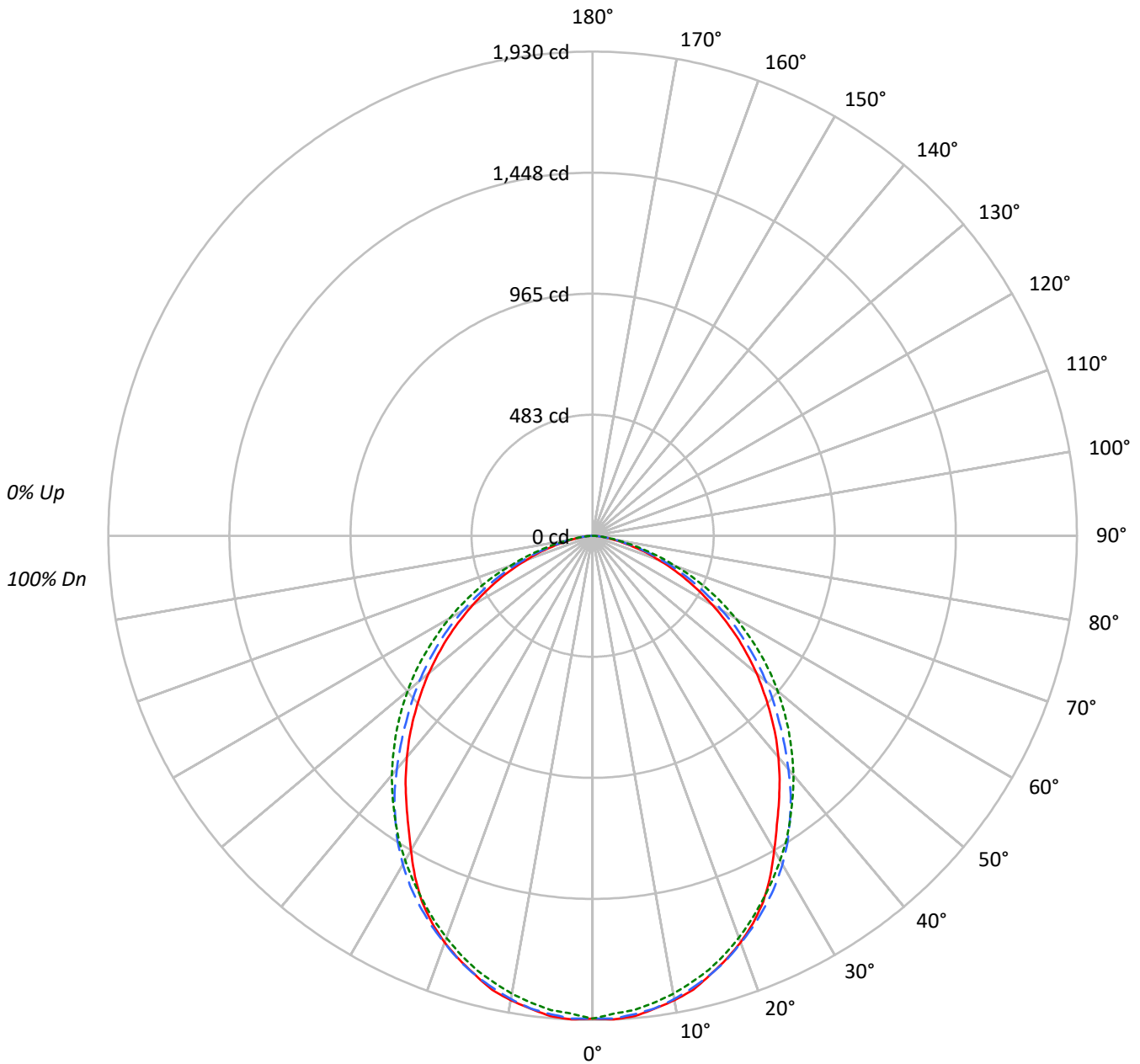
Lumens per Lamp: N/A
Luminaire Lumens: 4450.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5179	5179	5179
5°	5193	5171	5127
10°	5137	5123	5065
15°	5046	5046	4989
20°	4940	4946	4882
25°	4777	4836	4759
30°	4498	4700	4643
35°	4251	4505	4513
40°	4044	4262	4374
45°	3812	4004	4209
50°	3569	3773	4030
55°	3292	3510	3812
60°	2964	3203	3546
65°	2618	2848	3225
70°	2182	2426	2740
75°	1714	1937	2145
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°	509.0	11.4
20°-30°	743.9	16.7
30°-40°	844.4	19.0
40°-50°	815.1	18.3
50°-60°	672.4	15.1
60°-70°	447.8	10.1
70°-80°	200.4	4.5
80°-90°	35.9	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°	1434.1	32.2
0°-40°	2278.5	51.2
0°-60°	3766.0	84.6
0°-90°	4450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1924	1924	1924	1924	1924	
5°	1922	1922	1914	1904	1898	182
15°	1811	1816	1811	1803	1791	511
25°	1609	1621	1629	1617	1603	737
35°	1294	1312	1372	1379	1374	811
45°	1002	1019	1052	1100	1106	773
55°	702	714	748	790	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°	1924.5	1924.5	1924.5	1924.5	1924.5
2.5°	1929.7	1930.4	1926.0	1914.2	1906.8
5°	1922.3	1921.6	1914.2	1903.8	1897.9
7.5°	1900.9	1902.3	1900.1	1885.3	1877.2
10°	1880.1	1880.9	1875.0	1863.1	1853.5
12.5°	1853.5	1852.8	1844.7	1838.7	1823.2
15°	1811.4	1815.8	1811.4	1803.3	1790.7
17.5°	1770.7	1770.7	1773.7	1759.6	1750.0
20°	1724.9	1727.1	1727.1	1716.0	1704.9
22.5°	1671.7	1678.3	1680.5	1668.7	1655.4
25°	1608.8	1621.4	1628.8	1616.9	1602.9
27.5°	1532.7	1551.9	1574.1	1565.2	1549.7
30°	1447.6	1475.7	1512.7	1505.3	1494.2
32.5°	1367.0	1395.1	1446.2	1443.2	1437.3
35°	1293.9	1311.6	1371.5	1378.9	1373.7
37.5°	1224.4	1240.6	1296.8	1313.8	1309.4
40°	1151.2	1168.9	1213.3	1243.6	1245.1
42.5°	1078.7	1095.7	1131.9	1175.6	1175.6
45°	1001.8	1018.8	1052.1	1100.1	1106.1
47.5°	926.4	944.1	976.7	1024.7	1034.3
50°	852.5	868.7	901.3	947.8	962.6
52.5°	775.6	793.3	825.1	868.0	889.4
55°	701.6	713.5	748.2	789.6	812.5
57.5°	624.7	635.8	675.0	710.5	734.2
60°	550.8	564.9	595.2	631.4	658.8
62.5°	479.8	494.6	520.5	552.3	583.3
65°	411.1	422.2	447.3	479.1	506.5
67.5°	344.5	354.1	379.3	401.5	430.3
70°	277.3	289.8	308.3	329.7	348.2
72.5°	223.3	228.5	244.0	259.5	278.7
75°	164.9	173.7	186.3	195.2	206.3
77.5°	118.3	123.5	130.9	138.3	148.6
80°	79.1	81.3	88.0	89.5	97.6
82.5°	48.1	49.5	51.0	51.8	54.7
85°	25.9	25.9	25.9	24.4	24.4
87.5°	14.8	14.8	12.6	10.4	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)