

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: P556339

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-80-85-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: P556339
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-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

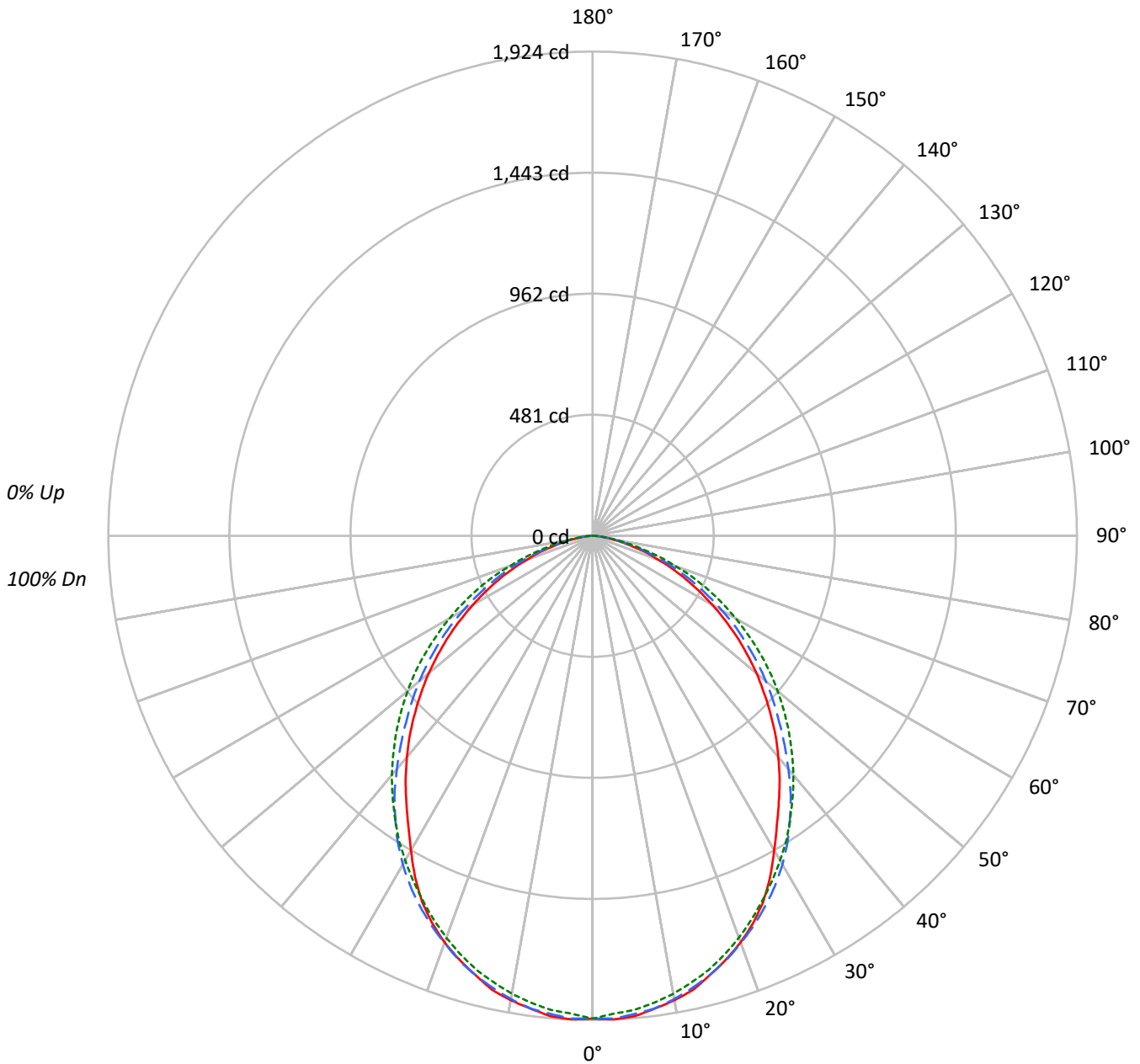
Lumens per Lamp: N/A
Luminaire Lumens: 4436.0 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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°	5163	5163	5163
5°	5176	5154	5111
10°	5121	5107	5049
15°	5031	5031	4973
20°	4924	4930	4867
25°	4762	4821	4744
30°	4484	4685	4628
35°	4237	4491	4499
40°	4031	4248	4360
45°	3801	3991	4196
50°	3558	3761	4017
55°	3281	3499	3800
60°	2955	3193	3534
65°	2609	2839	3215
70°	2175	2418	2731
75°	1709	1931	2138
80°	1223	1359	1508
85°	797	797	750



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.6	4.1
10°-20°	507.4	11.4
20°-30°	741.5	16.7
30°-40°	841.7	19.0
40°-50°	812.6	18.3
50°-60°	670.3	15.1
60°-70°	446.4	10.1
70°-80°	199.7	4.5
80°-90°	35.7	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°	1429.6	32.2
0°-40°	2271.3	51.2
0°-60°	3754.2	84.6
0°-90°	4436.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4436.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1916	1916	1908	1898	1892	181
15°	1806	1810	1806	1798	1785	509
25°	1604	1616	1624	1612	1598	734
35°	1290	1308	1367	1374	1369	808
45°	999	1016	1049	1097	1103	771
55°	699	711	746	787	810	624
65°	410	421	446	478	505	406
75°	164	173	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°	1918.5	1918.5	1918.5	1918.5	1918.5
2.5°	1923.6	1924.4	1919.9	1908.1	1900.8
5°	1916.2	1915.5	1908.1	1897.8	1891.9
7.5°	1894.9	1896.3	1894.1	1879.4	1871.3
10°	1874.2	1875.0	1869.1	1857.3	1847.7
12.5°	1847.7	1847.0	1838.9	1833.0	1817.5
15°	1805.7	1810.1	1805.7	1797.6	1785.1
17.5°	1765.2	1765.2	1768.1	1754.1	1744.5
20°	1719.5	1721.7	1721.7	1710.6	1699.6
22.5°	1666.4	1673.0	1675.2	1663.4	1650.2
25°	1603.7	1616.3	1623.6	1611.9	1597.9
27.5°	1527.8	1547.0	1569.1	1560.3	1544.8
30°	1443.1	1471.1	1507.9	1500.6	1489.5
32.5°	1362.7	1390.8	1441.6	1438.7	1432.8
35°	1289.8	1307.5	1367.2	1374.5	1369.4
37.5°	1220.5	1236.7	1292.7	1309.7	1305.3
40°	1147.5	1165.2	1209.4	1239.7	1241.1
42.5°	1075.3	1092.3	1128.4	1171.9	1171.9
45°	998.7	1015.6	1048.8	1096.7	1102.6
47.5°	923.5	941.2	973.6	1021.5	1031.1
50°	849.8	866.0	898.4	944.9	959.6
52.5°	773.1	790.8	822.5	865.3	886.6
55°	699.4	711.2	745.9	787.1	810.0
57.5°	622.8	633.8	672.9	708.3	731.9
60°	549.1	563.1	593.3	629.4	656.7
62.5°	478.3	493.1	518.9	550.6	581.5
65°	409.8	420.8	445.9	477.6	504.9
67.5°	343.4	353.0	378.1	400.2	428.9
70°	276.4	288.9	307.3	328.7	347.1
72.5°	222.6	227.7	243.2	258.7	277.9
75°	164.4	173.2	185.7	194.6	205.6
77.5°	117.9	123.1	130.5	137.8	148.1
80°	78.9	81.1	87.7	89.2	97.3
82.5°	47.9	49.4	50.9	51.6	54.5
85°	25.8	25.8	25.8	24.3	24.3
87.5°	14.7	14.7	12.5	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)