

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: P556261

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-93-86-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: P556261
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-35-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

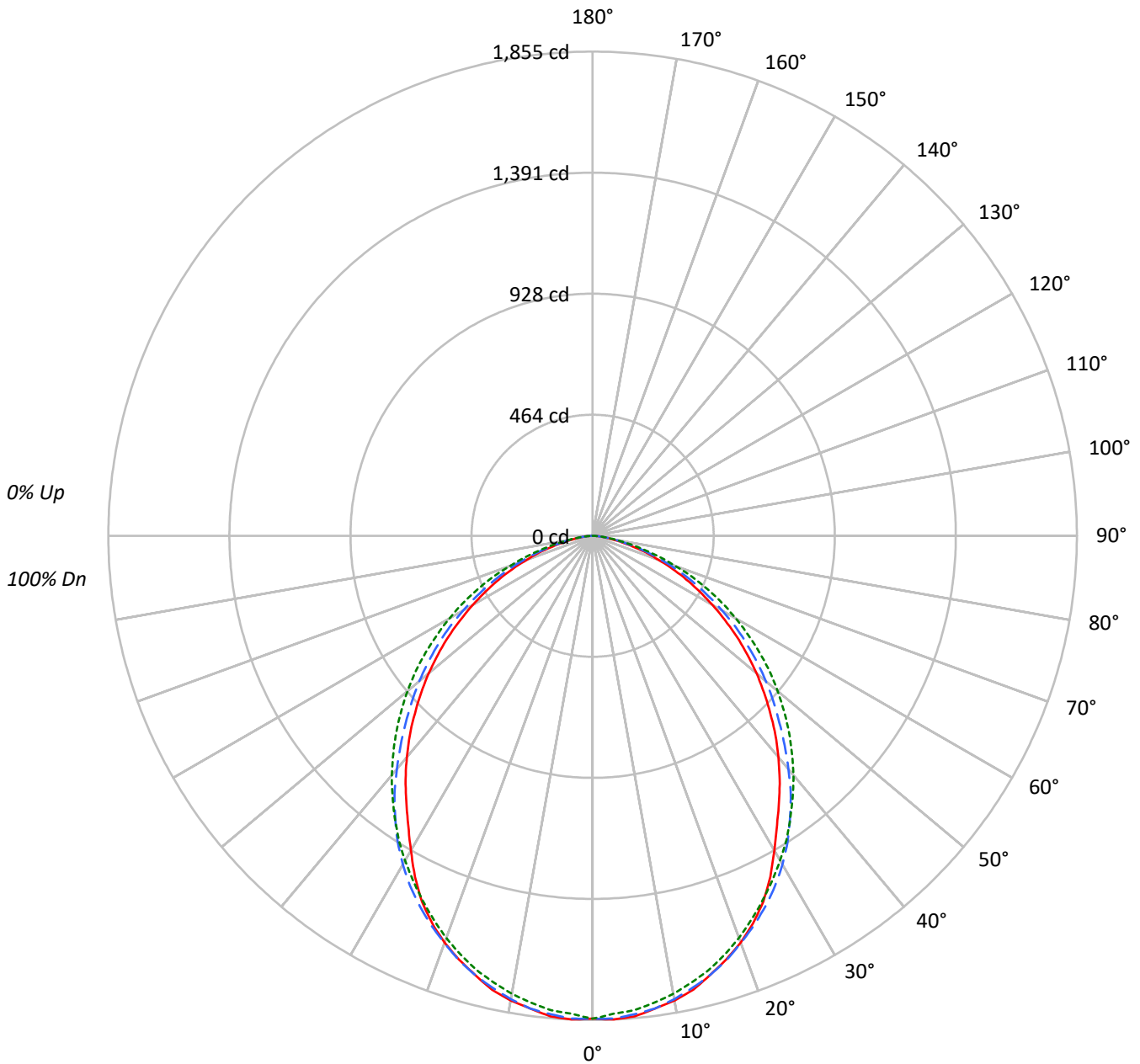
Lumens per Lamp: N/A
Luminaire Lumens: 4278.0 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4979	4979	4979
5°	4992	4971	4928
10°	4939	4925	4869
15°	4851	4851	4796
20°	4749	4755	4694
25°	4592	4649	4575
30°	4324	4519	4464
35°	4086	4331	4338
40°	3888	4097	4204
45°	3665	3849	4047
50°	3431	3627	3874
55°	3164	3375	3665
60°	2850	3080	3408
65°	2516	2738	3100
70°	2097	2332	2634
75°	1648	1862	2062
80°	1179	1311	1454
85°	769	769	726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.2	4.1
10°-20°	489.4	11.4
20°-30°	715.1	16.7
30°-40°	811.7	19.0
40°-50°	783.6	18.3
50°-60°	646.4	15.1
60°-70°	430.5	10.1
70°-80°	192.6	4.5
80°-90°	34.5	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°	1378.7	32.2
0°-40°	2190.4	51.2
0°-60°	3620.4	84.6
0°-90°	4278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4278.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1848	1847	1840	1830	1824	175
15°	1741	1746	1741	1734	1722	491
25°	1547	1559	1566	1554	1541	708
35°	1244	1261	1318	1326	1321	779
45°	963	979	1011	1058	1063	743
55°	674	686	719	759	781	602
65°	395	406	430	461	487	392
75°	158	167	179	188	198	173
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1850.1	1850.1	1850.1	1850.1	1850.1
2.5°	1855.1	1855.8	1851.5	1840.2	1833.1
5°	1848.0	1847.3	1840.2	1830.2	1824.5
7.5°	1827.4	1828.8	1826.7	1812.5	1804.6
10°	1807.5	1808.2	1802.5	1791.1	1781.9
12.5°	1781.9	1781.2	1773.4	1767.7	1752.7
15°	1741.4	1745.6	1741.4	1733.6	1721.5
17.5°	1702.3	1702.3	1705.1	1691.6	1682.4
20°	1658.2	1660.3	1660.3	1649.7	1639.0
22.5°	1607.0	1613.4	1615.6	1604.2	1591.4
25°	1546.6	1558.7	1565.8	1554.4	1540.9
27.5°	1473.4	1491.9	1513.2	1504.7	1489.8
30°	1391.7	1418.7	1454.2	1447.1	1436.5
32.5°	1314.2	1341.2	1390.3	1387.4	1381.7
35°	1243.8	1260.9	1318.5	1325.6	1320.6
37.5°	1177.0	1192.7	1246.7	1263.0	1258.8
40°	1106.7	1123.7	1166.4	1195.5	1196.9
42.5°	1037.0	1053.4	1088.2	1130.1	1130.1
45°	963.1	979.4	1011.4	1057.6	1063.3
47.5°	890.6	907.6	938.9	985.1	994.4
50°	819.5	835.2	866.4	911.2	925.4
52.5°	745.6	762.7	793.2	834.4	855.1
55°	674.5	685.9	719.3	759.1	781.1
57.5°	600.6	611.3	648.9	683.0	705.8
60°	529.5	543.0	572.2	607.0	633.3
62.5°	461.3	475.5	500.4	530.9	560.8
65°	395.2	405.8	430.0	460.6	486.9
67.5°	331.2	340.5	364.6	385.9	413.7
70°	266.5	278.6	296.4	317.0	334.8
72.5°	214.7	219.6	234.6	249.5	268.0
75°	158.5	167.0	179.1	187.6	198.3
77.5°	113.7	118.7	125.8	132.9	142.9
80°	76.1	78.2	84.6	86.0	93.8
82.5°	46.2	47.6	49.0	49.8	52.6
85°	24.9	24.9	24.9	23.5	23.5
87.5°	14.2	14.2	12.1	10.0	7.1
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)