

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: P556197

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-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: P556197
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-30-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 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

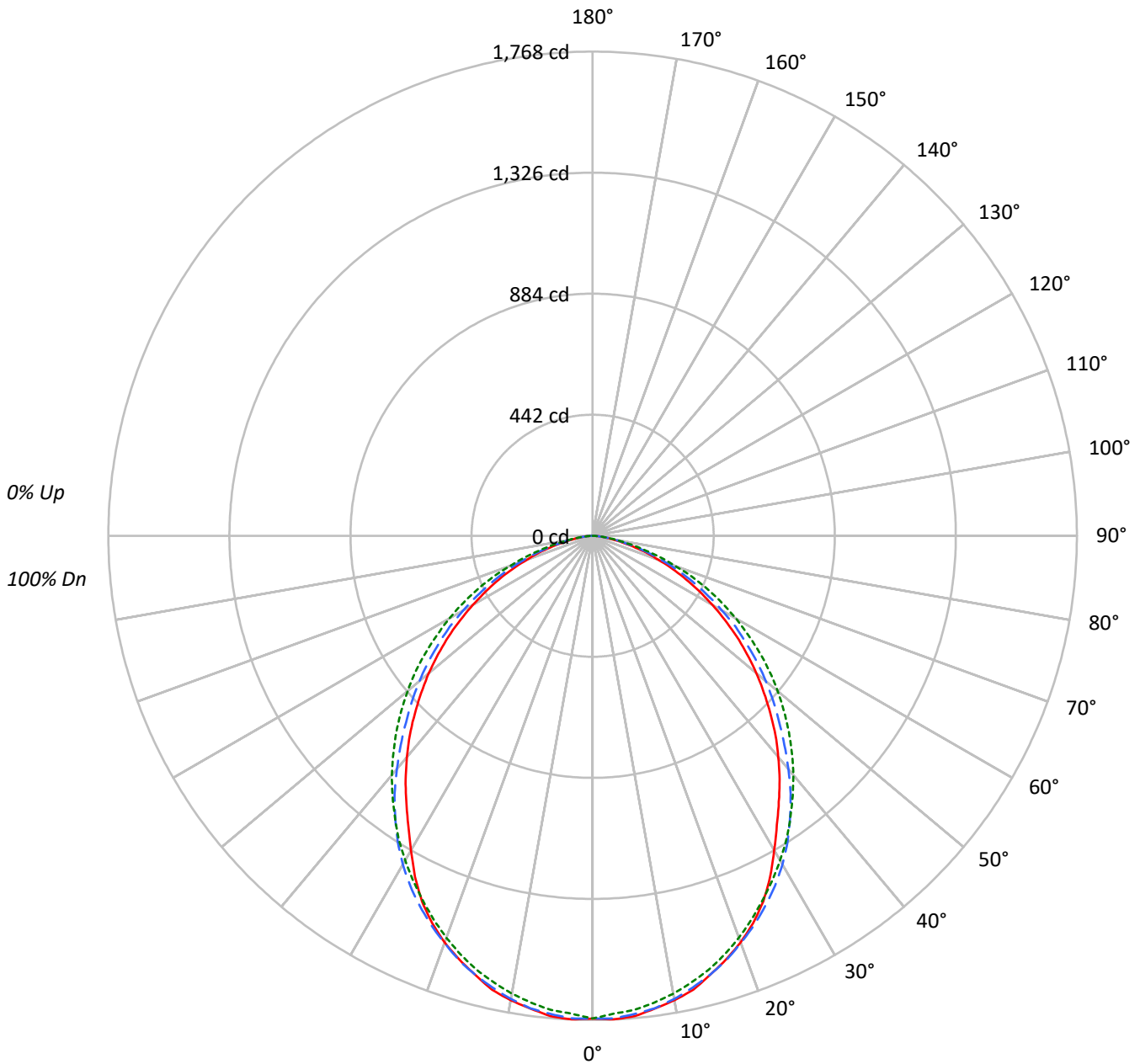
Lumens per Lamp: N/A
Luminaire Lumens: 4076.0 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4744	4744	4744
5°	4756	4736	4696
10°	4706	4693	4639
15°	4622	4622	4569
20°	4524	4530	4472
25°	4375	4430	4359
30°	4120	4305	4253
35°	3893	4127	4133
40°	3704	3904	4006
45°	3492	3667	3855
50°	3269	3456	3691
55°	3015	3215	3491
60°	2715	2934	3247
65°	2397	2609	2954
70°	1998	2222	2510
75°	1570	1775	1964
80°	1124	1249	1385
85°	732	732	689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.0	4.1
10°-20°	466.3	11.4
20°-30°	681.4	16.7
30°-40°	773.4	19.0
40°-50°	746.6	18.3
50°-60°	615.9	15.1
60°-70°	410.1	10.1
70°-80°	183.5	4.5
80°-90°	32.8	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°	1313.6	32.2
0°-40°	2087.0	51.2
0°-60°	3449.5	84.6
0°-90°	4076.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4076.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1763	1763	1763	1763	1763	
5°	1761	1760	1753	1744	1738	167
15°	1659	1663	1659	1652	1640	468
25°	1474	1485	1492	1481	1468	675
35°	1185	1201	1256	1263	1258	743
45°	918	933	964	1008	1013	708
55°	643	654	685	723	744	574
65°	376	387	410	439	464	373
75°	151	159	171	179	189	165
85°	24	24	24	22	22	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1762.8	1762.8	1762.8	1762.8	1762.8
2.5°	1767.5	1768.2	1764.1	1753.3	1746.5
5°	1760.7	1760.1	1753.3	1743.8	1738.4
7.5°	1741.1	1742.4	1740.4	1726.9	1719.4
10°	1722.1	1722.8	1717.4	1706.6	1697.8
12.5°	1697.8	1697.1	1689.6	1684.2	1670.0
15°	1659.2	1663.2	1659.2	1651.7	1640.2
17.5°	1621.9	1621.9	1624.6	1611.7	1602.9
20°	1579.9	1582.0	1582.0	1571.8	1561.6
22.5°	1531.2	1537.3	1539.3	1528.5	1516.3
25°	1473.6	1485.1	1491.9	1481.0	1468.2
27.5°	1403.8	1421.5	1441.8	1433.6	1419.4
30°	1326.0	1351.7	1385.6	1378.8	1368.6
32.5°	1252.2	1277.9	1324.6	1321.9	1316.5
35°	1185.1	1201.4	1256.2	1263.0	1258.2
37.5°	1121.5	1136.4	1187.8	1203.4	1199.3
40°	1054.4	1070.7	1111.3	1139.1	1140.4
42.5°	988.0	1003.6	1036.8	1076.8	1076.8
45°	917.6	933.2	963.7	1007.7	1013.1
47.5°	848.5	864.8	894.6	938.6	947.4
50°	780.8	795.7	825.5	868.2	881.7
52.5°	710.4	726.6	755.8	795.0	814.7
55°	642.7	653.5	685.3	723.3	744.2
57.5°	572.2	582.4	618.3	650.8	672.5
60°	504.5	517.4	545.2	578.3	603.4
62.5°	439.5	453.1	476.8	505.9	534.3
65°	376.5	386.7	409.7	438.8	463.9
67.5°	315.6	324.4	347.4	367.7	394.1
70°	254.0	265.5	282.4	302.0	319.0
72.5°	204.5	209.3	223.5	237.7	255.3
75°	151.0	159.1	170.7	178.8	188.9
77.5°	108.4	113.1	119.9	126.6	136.1
80°	72.5	74.5	80.6	81.9	89.4
82.5°	44.0	45.4	46.7	47.4	50.1
85°	23.7	23.7	23.7	22.3	22.3
87.5°	13.5	13.5	11.5	9.5	6.8
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)