

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: P556187

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-82-94-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: P556187
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

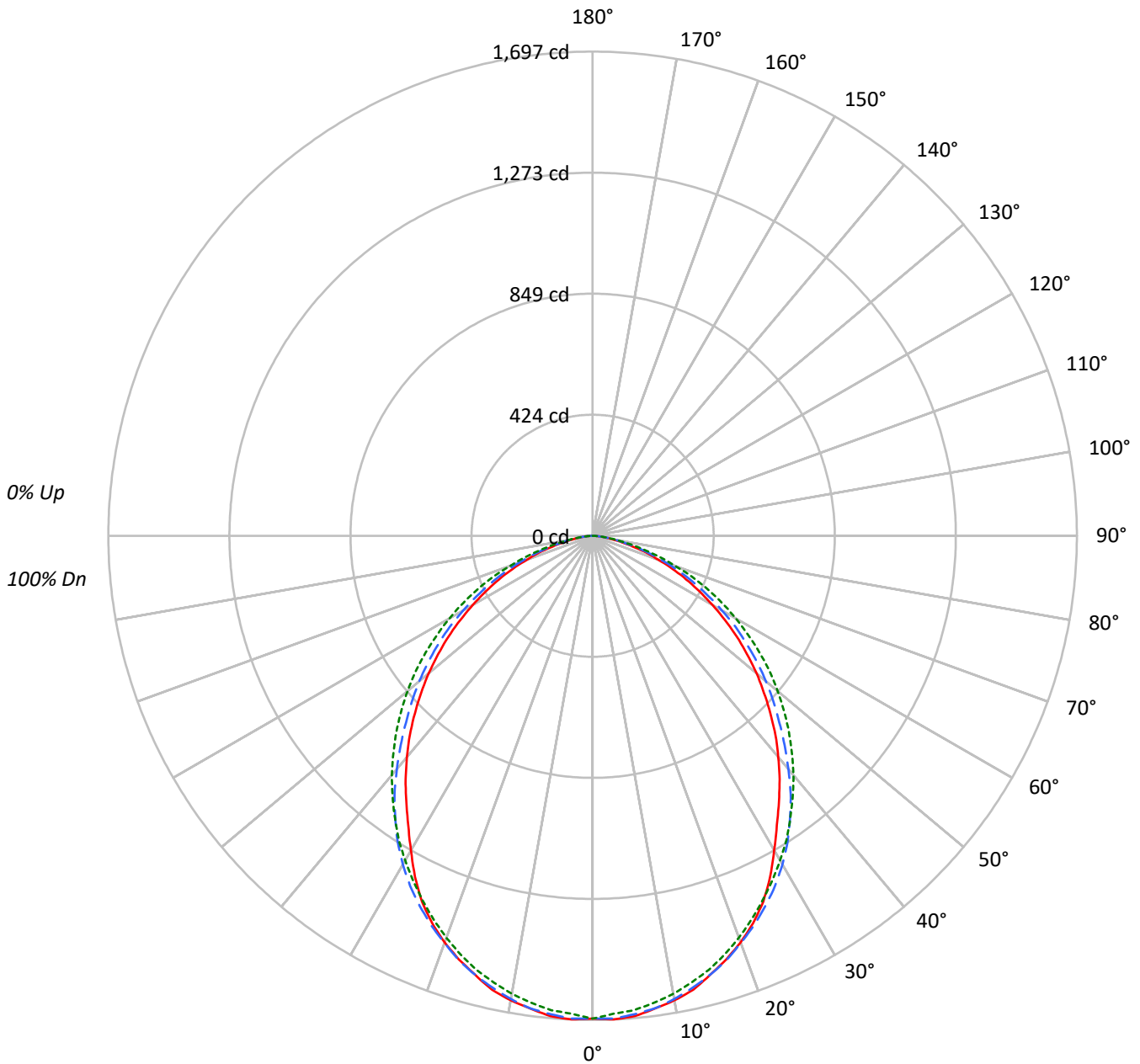
Lumens per Lamp: N/A
Luminaire Lumens: 3913.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4554	4554	4554
5°	4566	4547	4508
10°	4518	4505	4454
15°	4437	4437	4387
20°	4343	4349	4293
25°	4200	4252	4185
30°	3955	4133	4083
35°	3737	3962	3968
40°	3556	3748	3846
45°	3352	3521	3701
50°	3138	3318	3544
55°	2895	3087	3352
60°	2606	2816	3118
65°	2302	2504	2835
70°	1918	2133	2409
75°	1508	1703	1886
80°	1079	1199	1330
85°	704	704	664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	4.1
10°-20°	447.6	11.4
20°-30°	654.1	16.7
30°-40°	742.5	19.0
40°-50°	716.8	18.3
50°-60°	591.3	15.1
60°-70°	393.7	10.1
70°-80°	176.2	4.5
80°-90°	31.5	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°	1261.0	32.2
0°-40°	2003.5	51.2
0°-60°	3311.5	84.6
0°-90°	3913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1692	1692	1692	1692	1692	
5°	1690	1690	1683	1674	1669	160
15°	1593	1597	1593	1586	1575	449
25°	1415	1426	1432	1422	1410	648
35°	1138	1153	1206	1212	1208	713
45°	881	896	925	967	973	680
55°	617	627	658	694	714	551
65°	362	371	393	421	445	358
75°	145	153	164	172	181	159
85°	23	23	23	22	22	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1692.3	1692.3	1692.3	1692.3	1692.3
2.5°	1696.8	1697.5	1693.6	1683.2	1676.7
5°	1690.3	1689.7	1683.2	1674.1	1668.9
7.5°	1671.5	1672.8	1670.8	1657.8	1650.7
10°	1653.3	1653.9	1648.7	1638.3	1629.9
12.5°	1629.9	1629.2	1622.1	1616.9	1603.2
15°	1592.8	1596.7	1592.8	1585.7	1574.6
17.5°	1557.0	1557.0	1559.6	1547.3	1538.8
20°	1516.7	1518.7	1518.7	1508.9	1499.2
22.5°	1469.9	1475.8	1477.7	1467.3	1455.6
25°	1414.7	1425.7	1432.2	1421.8	1409.5
27.5°	1347.7	1364.6	1384.1	1376.3	1362.7
30°	1272.9	1297.6	1330.2	1323.7	1313.9
32.5°	1202.1	1226.8	1271.6	1269.0	1263.8
35°	1137.7	1153.3	1206.0	1212.5	1207.9
37.5°	1076.6	1090.9	1140.3	1155.3	1151.4
40°	1012.2	1027.8	1066.9	1093.5	1094.8
42.5°	948.5	963.5	995.3	1033.7	1033.7
45°	880.9	895.9	925.1	967.4	972.6
47.5°	814.6	830.2	858.8	901.1	909.5
50°	749.6	763.9	792.5	833.5	846.5
52.5°	682.0	697.6	725.5	763.2	782.1
55°	617.0	627.4	657.9	694.3	714.5
57.5°	549.4	559.1	593.6	624.8	645.6
60°	484.3	496.7	523.3	555.2	579.3
62.5°	421.9	434.9	457.7	485.6	512.9
65°	361.5	371.2	393.3	421.3	445.3
67.5°	303.0	311.4	333.5	353.0	378.4
70°	243.8	254.8	271.1	290.0	306.2
72.5°	196.3	200.9	214.5	228.2	245.1
75°	145.0	152.8	163.8	171.6	181.4
77.5°	104.0	108.6	115.1	121.6	130.7
80°	69.6	71.5	77.4	78.7	85.8
82.5°	42.3	43.6	44.9	45.5	48.1
85°	22.8	22.8	22.8	21.5	21.5
87.5°	13.0	13.0	11.1	9.1	6.5
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)