

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: P556245

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-82-86-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: P556245
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC 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

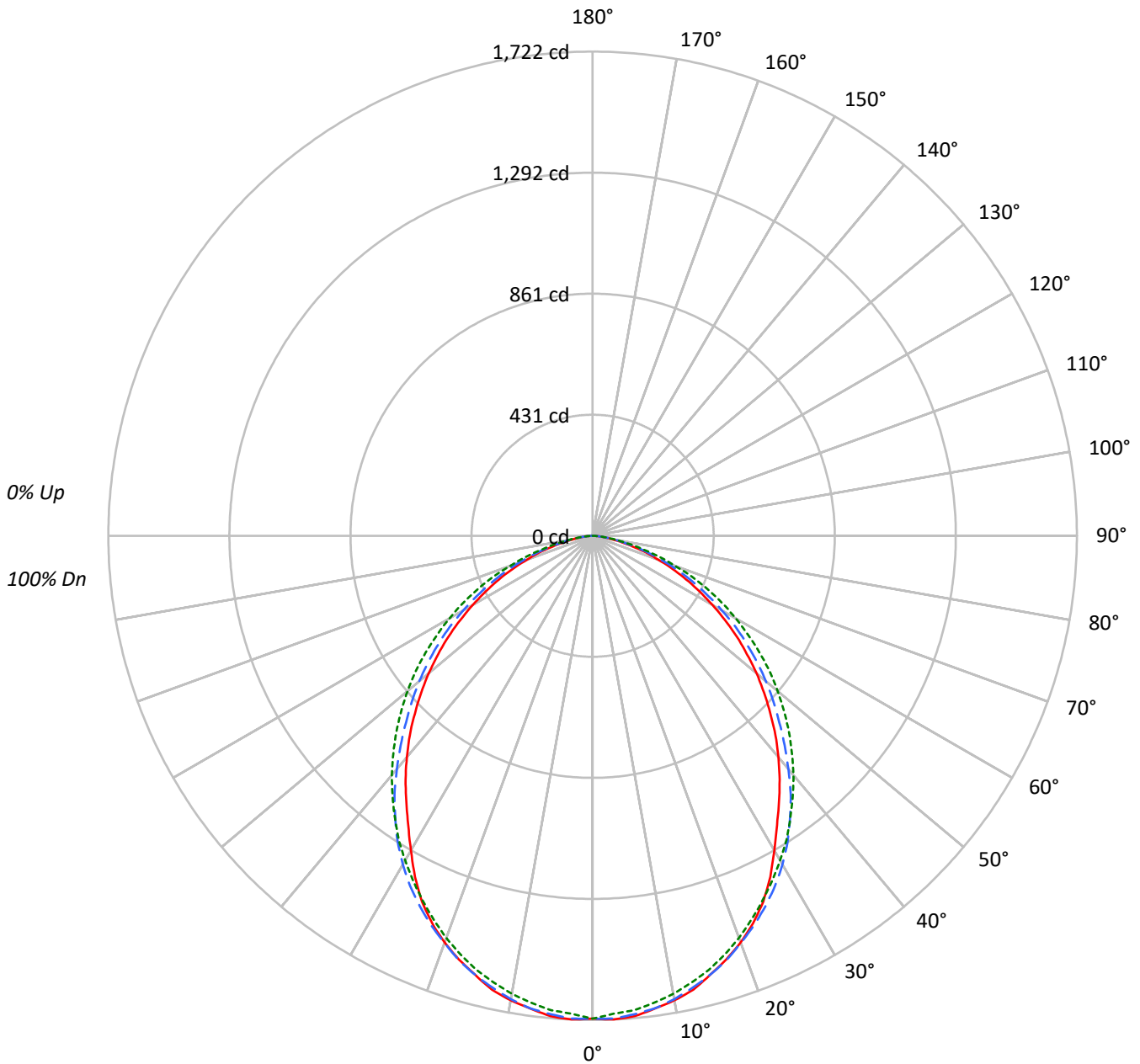
Lumens per Lamp: N/A
Luminaire Lumens: 3971.0 lumens
Efficiency: N/A
Efficacy: 91.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4621	4621	4621
5°	4634	4614	4575
10°	4585	4572	4520
15°	4503	4503	4452
20°	4408	4414	4357
25°	4263	4316	4247
30°	4014	4195	4143
35°	3793	4021	4027
40°	3608	3803	3903
45°	3402	3573	3756
50°	3185	3367	3596
55°	2937	3133	3402
60°	2645	2858	3164
65°	2336	2542	2877
70°	1947	2164	2445
75°	1529	1729	1914
80°	1094	1216	1350
85°	713	713	673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.7	4.1
10°-20°	454.2	11.4
20°-30°	663.8	16.7
30°-40°	753.5	19.0
40°-50°	727.4	18.3
50°-60°	600.0	15.1
60°-70°	399.6	10.1
70°-80°	178.8	4.5
80°-90°	32.0	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°	1279.7	32.2
0°-40°	2033.2	51.2
0°-60°	3360.6	84.6
0°-90°	3971.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3971.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1717	1717	1717	1717	1717	
5°	1715	1715	1708	1699	1694	162
15°	1616	1620	1616	1609	1598	456
25°	1436	1447	1454	1443	1430	657
35°	1155	1170	1224	1230	1226	723
45°	894	909	939	982	987	690
55°	626	637	668	705	725	559
65°	367	377	399	428	452	364
75°	147	155	166	174	184	161
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°	1717.4	1717.4	1717.4	1717.4	1717.4
2.5°	1722.0	1722.6	1718.7	1708.1	1701.5
5°	1715.4	1714.7	1708.1	1698.9	1693.6
7.5°	1696.2	1697.6	1695.6	1682.4	1675.1
10°	1677.8	1678.4	1673.2	1662.6	1654.0
12.5°	1654.0	1653.4	1646.1	1640.8	1627.0
15°	1616.4	1620.4	1616.4	1609.2	1597.9
17.5°	1580.1	1580.1	1582.8	1570.2	1561.7
20°	1539.2	1541.2	1541.2	1531.3	1521.4
22.5°	1491.7	1497.7	1499.6	1489.1	1477.2
25°	1435.6	1446.9	1453.5	1442.9	1430.4
27.5°	1367.7	1384.8	1404.6	1396.7	1382.9
30°	1291.8	1316.9	1349.9	1343.3	1333.4
32.5°	1219.9	1245.0	1290.5	1287.9	1282.6
35°	1154.6	1170.4	1223.9	1230.5	1225.8
37.5°	1092.6	1107.1	1157.2	1172.4	1168.4
40°	1027.2	1043.1	1082.7	1109.7	1111.0
42.5°	962.6	977.8	1010.1	1049.0	1049.0
45°	894.0	909.1	938.8	981.7	987.0
47.5°	826.7	842.5	871.5	914.4	923.0
50°	760.7	775.2	804.2	845.8	859.0
52.5°	692.1	707.9	736.3	774.6	793.7
55°	626.1	636.7	667.7	704.6	725.1
57.5°	557.5	567.4	602.4	634.0	655.1
60°	491.5	504.1	531.1	563.4	587.8
62.5°	428.2	441.4	464.5	492.8	520.6
65°	366.8	376.7	399.2	427.5	451.9
67.5°	307.4	316.0	338.5	358.2	384.0
70°	247.4	258.6	275.1	294.3	310.7
72.5°	199.2	203.9	217.7	231.6	248.7
75°	147.1	155.0	166.3	174.2	184.1
77.5°	105.6	110.2	116.8	123.4	132.6
80°	70.6	72.6	78.5	79.8	87.1
82.5°	42.9	44.2	45.5	46.2	48.8
85°	23.1	23.1	23.1	21.8	21.8
87.5°	13.2	13.2	11.2	9.2	6.6
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)