

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: P556783

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-97-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: P556783
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-LD4-1STD-35-UNV-93-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

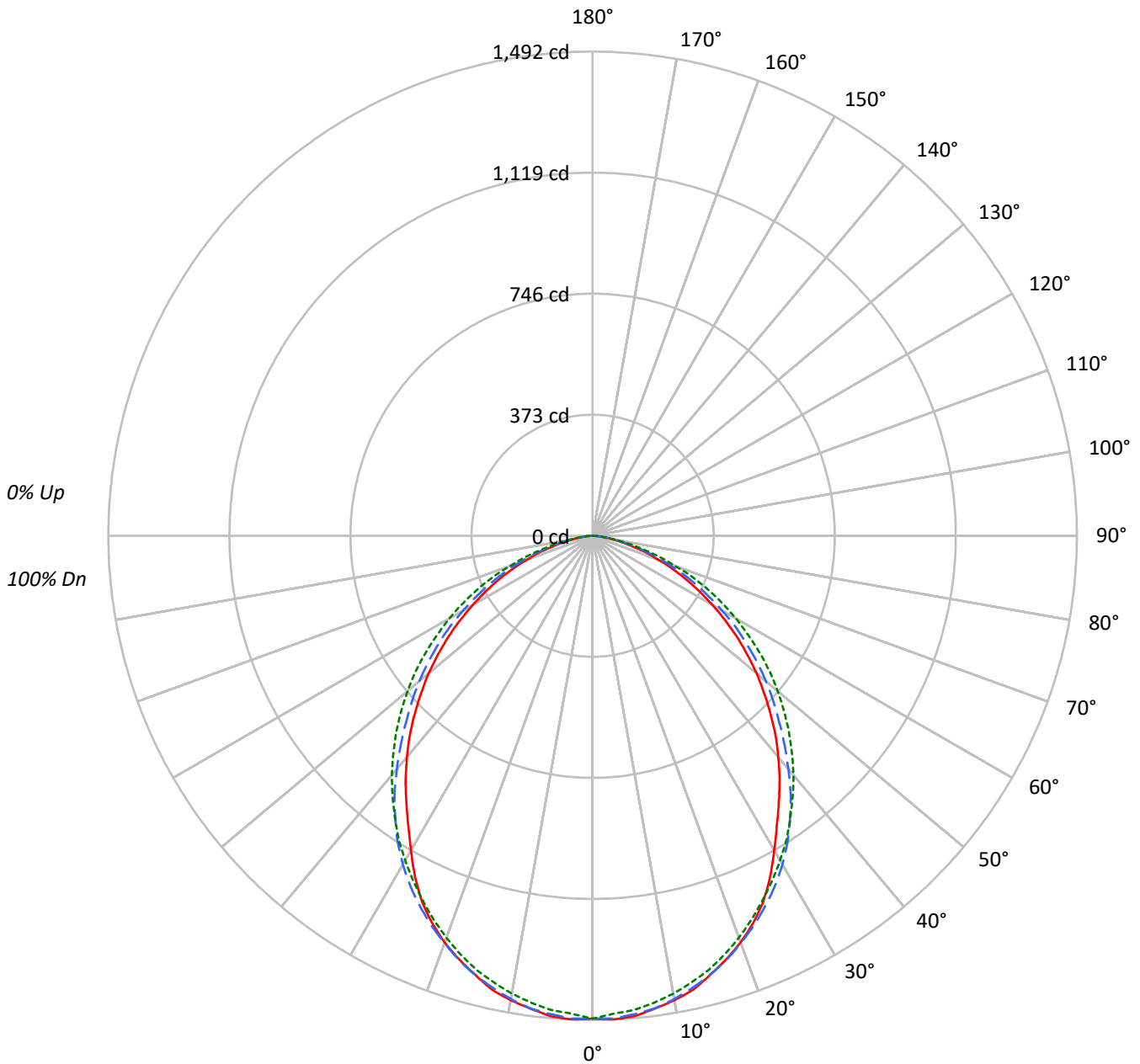
Lumens per Lamp: N/A
Luminaire Lumens: 3440.0 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	4003	4003	4003
5°	4014	3997	3963
10°	3971	3960	3915
15°	3901	3901	3857
20°	3818	3823	3774
25°	3693	3738	3679
30°	3477	3634	3589
35°	3286	3483	3488
40°	3126	3295	3381
45°	2947	3095	3254
50°	2759	2917	3115
55°	2545	2714	2947
60°	2292	2476	2740
65°	2024	2202	2493
70°	1686	1875	2118
75°	1326	1497	1658
80°	948	1054	1168
85°	618	618	584



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.1	4.1
10°-20°	393.5	11.4
20°-30°	575.0	16.7
30°-40°	652.7	19.0
40°-50°	630.1	18.3
50°-60°	519.8	15.1
60°-70°	346.1	10.1
70°-80°	154.9	4.5
80°-90°	27.7	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°	1108.6	32.2
0°-40°	1761.3	51.2
0°-60°	2911.2	84.6
0°-90°	3440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1488	1488	1488	1488	1488	
5°	1486	1485	1480	1472	1467	141
15°	1400	1404	1400	1394	1384	395
25°	1244	1253	1259	1250	1239	570
35°	1000	1014	1060	1066	1062	627
45°	774	788	813	850	855	598
55°	542	552	578	610	628	484
65°	318	326	346	370	392	315
75°	128	134	144	151	160	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1487.7	1487.7	1487.7	1487.7	1487.7
2.5°	1491.7	1492.3	1488.9	1479.7	1474.0
5°	1486.0	1485.4	1479.7	1471.7	1467.1
7.5°	1469.4	1470.6	1468.9	1457.4	1451.1
10°	1453.4	1454.0	1449.4	1440.3	1432.8
12.5°	1432.8	1432.3	1426.0	1421.4	1409.4
15°	1400.3	1403.7	1400.3	1394.0	1384.3
17.5°	1368.8	1368.8	1371.1	1360.3	1352.8
20°	1333.4	1335.1	1335.1	1326.5	1318.0
22.5°	1292.2	1297.4	1299.1	1290.0	1279.7
25°	1243.7	1253.4	1259.1	1250.0	1239.1
27.5°	1184.8	1199.7	1216.8	1209.9	1197.9
30°	1119.1	1140.8	1169.4	1163.6	1155.1
32.5°	1056.8	1078.5	1117.9	1115.6	1111.1
35°	1000.2	1013.9	1060.2	1065.9	1061.9
37.5°	946.5	959.0	1002.5	1015.6	1012.2
40°	889.9	903.6	937.9	961.3	962.5
42.5°	833.9	847.0	875.0	908.7	908.7
45°	774.4	787.6	813.3	850.4	855.0
47.5°	716.1	729.9	755.0	792.2	799.6
50°	659.0	671.6	696.7	732.7	744.1
52.5°	599.5	613.3	637.8	671.0	687.6
55°	542.4	551.5	578.4	610.4	628.1
57.5°	482.9	491.5	521.8	549.2	567.5
60°	425.8	436.7	460.1	488.1	509.2
62.5°	370.9	382.4	402.4	426.9	450.9
65°	317.8	326.3	345.8	370.4	391.5
67.5°	266.3	273.8	293.2	310.3	332.6
70°	214.3	224.0	238.3	254.9	269.2
72.5°	172.6	176.6	188.6	200.6	215.5
75°	127.5	134.3	144.0	150.9	159.5
77.5°	91.4	95.4	101.2	106.9	114.9
80°	61.2	62.9	68.0	69.2	75.4
82.5°	37.1	38.3	39.4	40.0	42.3
85°	20.0	20.0	20.0	18.9	18.9
87.5°	11.4	11.4	9.7	8.0	5.7
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)