

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: P556715

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-93-94-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: P556715
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-30-UNV-93-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND
3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

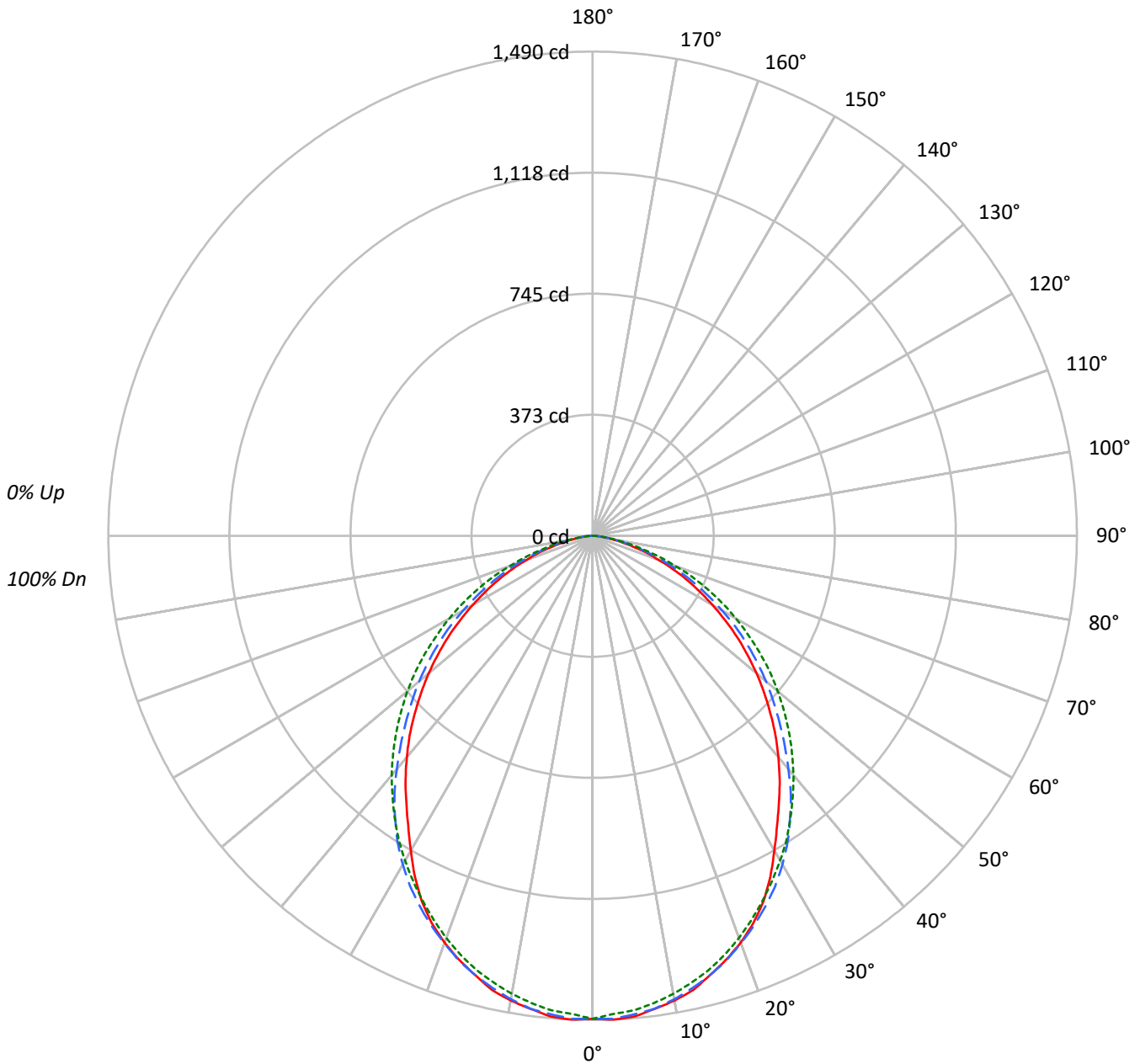
Lumens per Lamp: N/A
Luminaire Lumens: 3437.0 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4000	4000	4000
5°	4011	3994	3960
10°	3968	3957	3912
15°	3897	3897	3853
20°	3815	3820	3771
25°	3689	3735	3676
30°	3474	3630	3586
35°	3283	3480	3485
40°	3123	3292	3378
45°	2945	3092	3251
50°	2756	2914	3113
55°	2542	2711	2944
60°	2289	2474	2738
65°	2022	2200	2491
70°	1685	1873	2116
75°	1324	1496	1656
80°	947	1054	1168
85°	618	618	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	4.1
10°-20°	393.2	11.4
20°-30°	574.5	16.7
30°-40°	652.2	19.0
40°-50°	629.6	18.3
50°-60°	519.4	15.1
60°-70°	345.8	10.1
70°-80°	154.8	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°	1107.6	32.2
0°-40°	1759.8	51.2
0°-60°	2908.7	84.6
0°-90°	3437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1485	1484	1478	1470	1466	141
15°	1399	1402	1399	1393	1383	394
25°	1243	1252	1258	1249	1238	569
35°	999	1013	1059	1065	1061	626
45°	774	787	813	850	854	597
55°	542	551	578	610	628	484
65°	318	326	346	370	391	315
75°	127	134	144	151	159	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°	1486.4	1486.4	1486.4	1486.4	1486.4
2.5°	1490.4	1491.0	1487.6	1478.4	1472.7
5°	1484.7	1484.1	1478.4	1470.4	1465.9
7.5°	1468.1	1469.3	1467.6	1456.1	1449.9
10°	1452.2	1452.7	1448.2	1439.0	1431.6
12.5°	1431.6	1431.0	1424.7	1420.2	1408.2
15°	1399.0	1402.5	1399.0	1392.8	1383.1
17.5°	1367.6	1367.6	1369.9	1359.1	1351.6
20°	1332.2	1333.9	1333.9	1325.4	1316.8
22.5°	1291.1	1296.3	1298.0	1288.8	1278.6
25°	1242.6	1252.3	1258.0	1248.9	1238.0
27.5°	1183.8	1198.6	1215.7	1208.9	1196.9
30°	1118.1	1139.8	1168.3	1162.6	1154.1
32.5°	1055.9	1077.6	1117.0	1114.7	1110.1
35°	999.3	1013.0	1059.3	1065.0	1061.0
37.5°	945.6	958.2	1001.6	1014.7	1011.3
40°	889.1	902.8	937.1	960.5	961.6
42.5°	833.1	846.3	874.3	908.0	908.0
45°	773.8	786.9	812.6	849.7	854.3
47.5°	715.5	729.2	754.3	791.5	798.9
50°	658.4	671.0	696.1	732.1	743.5
52.5°	599.0	612.7	637.3	670.4	687.0
55°	541.9	551.1	577.9	609.9	627.6
57.5°	482.5	491.1	521.4	548.8	567.0
60°	425.4	436.3	459.7	487.7	508.8
62.5°	370.6	382.0	402.0	426.6	450.5
65°	317.5	326.1	345.5	370.0	391.2
67.5°	266.1	273.5	292.9	310.1	332.3
70°	214.1	223.8	238.1	254.7	269.0
72.5°	172.5	176.5	188.4	200.4	215.3
75°	127.3	134.2	143.9	150.8	159.3
77.5°	91.4	95.4	101.1	106.8	114.8
80°	61.1	62.8	68.0	69.1	75.4
82.5°	37.1	38.3	39.4	40.0	42.3
85°	20.0	20.0	20.0	18.8	18.8
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)