

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: P556781

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-93-96-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: P556781
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-93-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

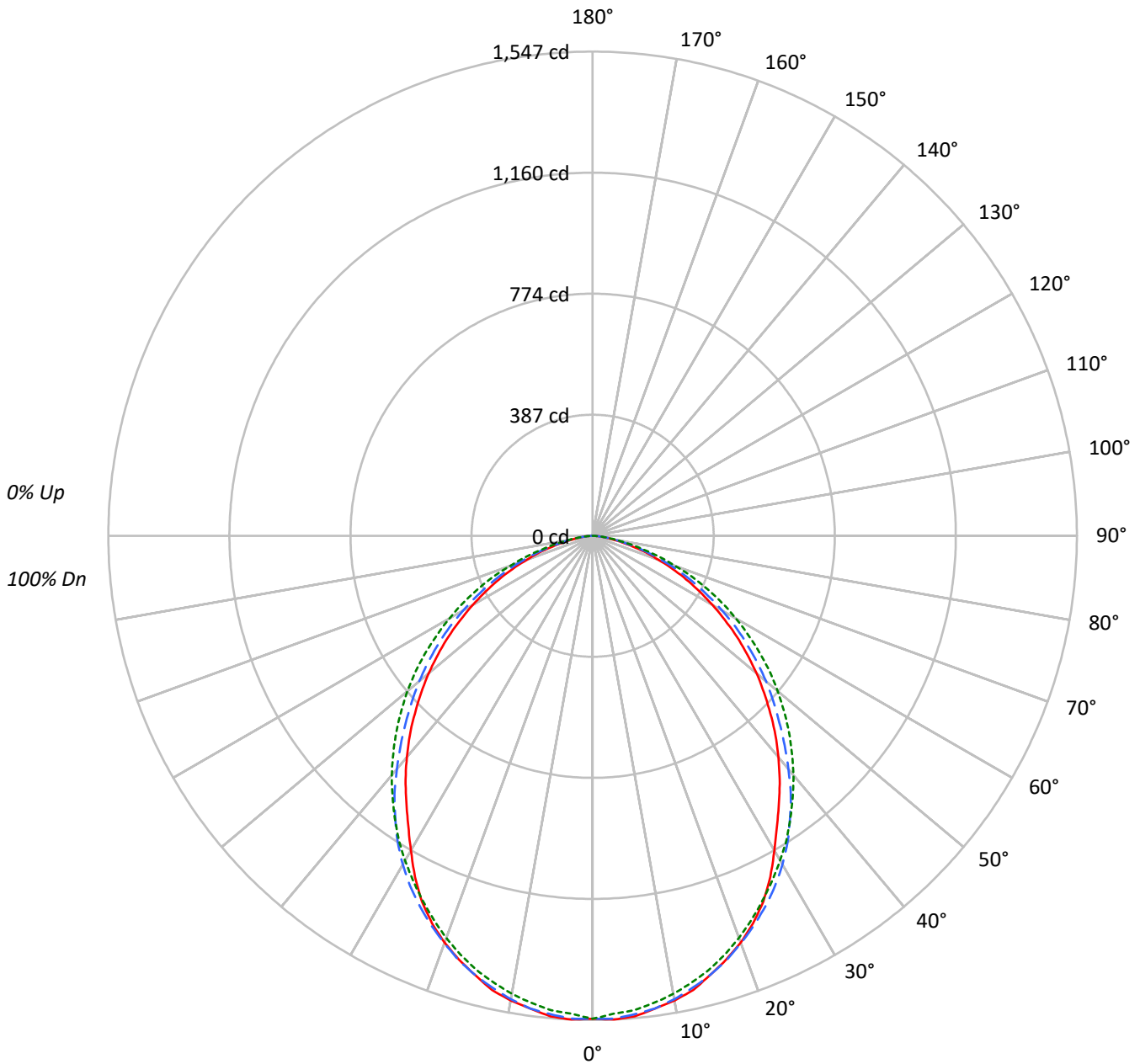
Lumens per Lamp: N/A
Luminaire Lumens: 3568.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4152	4152	4152
5°	4163	4146	4111
10°	4119	4108	4061
15°	4046	4046	4000
20°	3960	3966	3915
25°	3830	3877	3816
30°	3607	3769	3723
35°	3408	3613	3618
40°	3242	3417	3507
45°	3057	3210	3375
50°	2861	3025	3231
55°	2639	2814	3057
60°	2377	2568	2843
65°	2099	2283	2586
70°	1749	1945	2197
75°	1375	1553	1720
80°	982	1093	1213
85°	639	639	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.3	4.1
10°-20°	408.1	11.4
20°-30°	596.4	16.7
30°-40°	677.0	19.0
40°-50°	653.6	18.3
50°-60°	539.1	15.1
60°-70°	359.0	10.1
70°-80°	160.7	4.5
80°-90°	28.7	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°	1149.9	32.2
0°-40°	1826.9	51.2
0°-60°	3019.6	84.6
0°-90°	3568.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3568.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1543	1543	1543	1543	1543	
5°	1541	1541	1535	1526	1522	146
15°	1452	1456	1452	1446	1436	409
25°	1290	1300	1306	1296	1285	591
35°	1037	1052	1100	1106	1101	650
45°	803	817	844	882	887	620
55°	563	572	600	633	652	502
65°	330	338	359	384	406	327
75°	132	139	149	156	165	145
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1543.1	1543.1	1543.1	1543.1	1543.1
2.5°	1547.2	1547.8	1544.3	1534.8	1528.8
5°	1541.3	1540.7	1534.8	1526.5	1521.7
7.5°	1524.1	1525.3	1523.5	1511.6	1505.1
10°	1507.5	1508.1	1503.4	1493.9	1486.2
12.5°	1486.2	1485.6	1479.0	1474.3	1461.9
15°	1452.4	1455.9	1452.4	1445.8	1435.8
17.5°	1419.8	1419.8	1422.1	1410.9	1403.2
20°	1383.0	1384.8	1384.8	1375.9	1367.0
22.5°	1340.3	1345.7	1347.4	1338.0	1327.3
25°	1289.9	1300.0	1305.9	1296.5	1285.2
27.5°	1228.9	1244.3	1262.1	1255.0	1242.5
30°	1160.7	1183.2	1212.9	1206.9	1198.1
32.5°	1096.1	1118.6	1159.5	1157.2	1152.4
35°	1037.4	1051.6	1099.7	1105.6	1101.4
37.5°	981.7	994.7	1039.8	1053.4	1049.9
40°	923.0	937.2	972.8	997.1	998.3
42.5°	864.9	878.5	907.6	942.6	942.6
45°	803.2	816.9	843.6	882.1	886.8
47.5°	742.8	757.0	783.1	821.6	829.3
50°	683.5	696.5	722.6	760.0	771.8
52.5°	621.9	636.1	661.6	696.0	713.1
55°	562.6	572.1	599.9	633.1	651.5
57.5°	500.9	509.8	541.2	569.7	588.7
60°	441.6	452.9	477.2	506.3	528.2
62.5°	384.7	396.6	417.3	442.8	467.7
65°	329.6	338.5	358.6	384.1	406.1
67.5°	276.2	284.0	304.1	321.9	345.0
70°	222.3	232.4	247.2	264.4	279.2
72.5°	179.0	183.2	195.6	208.1	223.5
75°	132.2	139.3	149.4	156.5	165.4
77.5°	94.8	99.0	104.9	110.9	119.2
80°	63.4	65.2	70.5	71.7	78.3
82.5°	38.5	39.7	40.9	41.5	43.9
85°	20.7	20.7	20.7	19.6	19.6
87.5°	11.9	11.9	10.1	8.3	5.9
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)