

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: P556072

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-88-EDD-90**

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: P556072
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-12-2-LD4-3STD-40-UNV-93-88-EDD-90
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

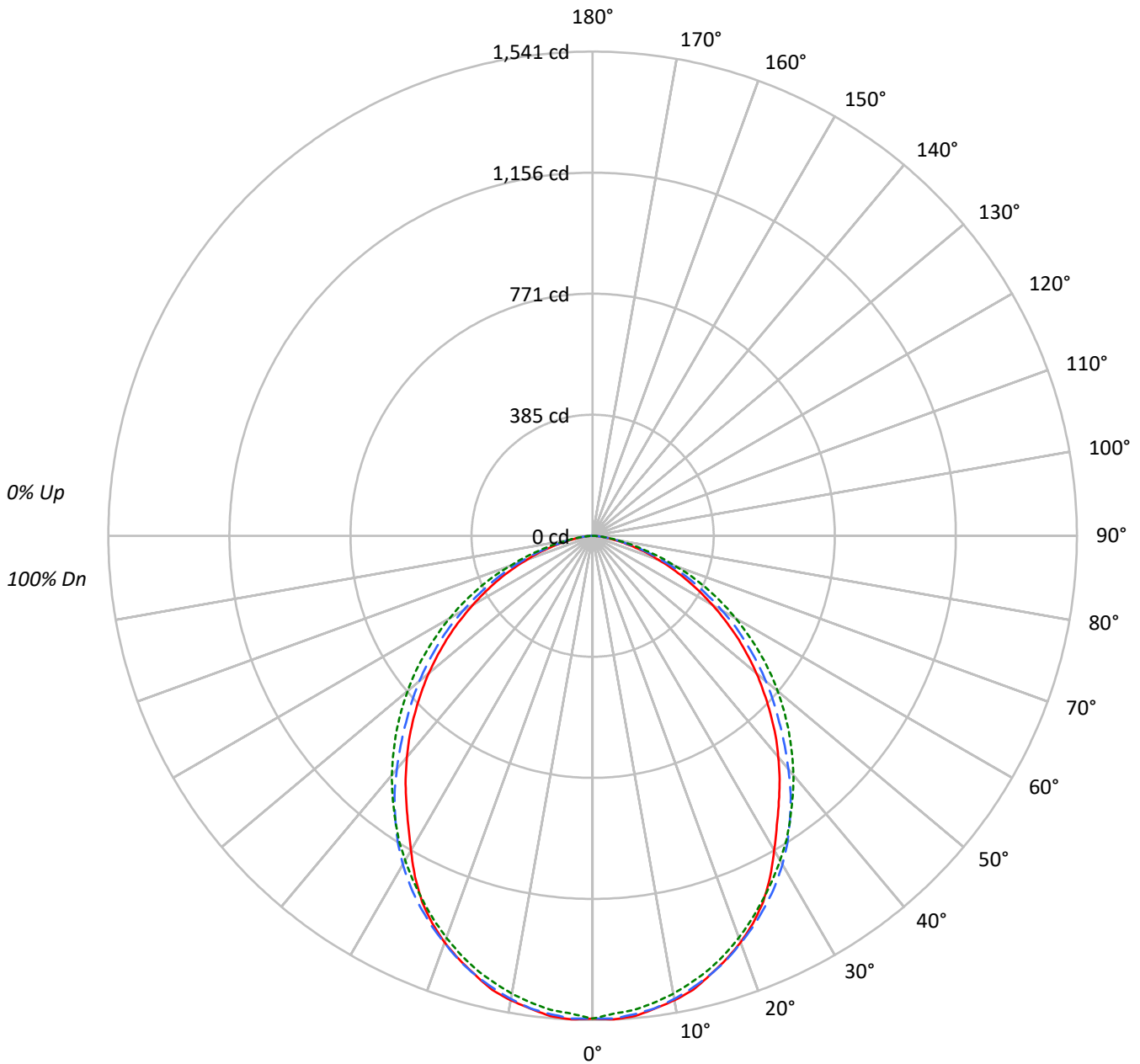
Lumens per Lamp: N/A
Luminaire Lumens: 3553.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	8270	8270	8270
5°	8292	8257	8186
10°	8204	8181	8088
15°	8059	8059	7966
20°	7888	7898	7797
25°	7628	7723	7600
30°	7183	7506	7414
35°	6787	7194	7206
40°	6457	6806	6984
45°	6088	6393	6721
50°	5699	6025	6435
55°	5256	5605	6088
60°	4734	5115	5662
65°	4180	4548	5150
70°	3484	3874	4375
75°	2737	3094	3425
80°	1959	2176	2414
85°	1278	1278	1204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	4.1
10°-20°	406.4	11.4
20°-30°	593.9	16.7
30°-40°	674.2	19.0
40°-50°	650.8	18.3
50°-60°	536.9	15.1
60°-70°	357.5	10.1
70°-80°	160.0	4.5
80°-90°	28.6	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°	1145.0	32.2
0°-40°	1819.2	51.2
0°-60°	3006.9	84.6
0°-90°	3553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1537	1537	1537	1537	1537	
5°	1535	1534	1528	1520	1515	145
15°	1446	1450	1446	1440	1430	408
25°	1284	1295	1300	1291	1280	588
35°	1033	1047	1095	1101	1097	647
45°	800	813	840	878	883	617
55°	560	570	597	630	649	500
65°	328	337	357	382	404	325
75°	132	139	149	156	165	144
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°	1536.6	1536.6	1536.6	1536.6	1536.6
2.5°	1540.7	1541.3	1537.8	1528.3	1522.4
5°	1534.8	1534.2	1528.3	1520.1	1515.3
7.5°	1517.7	1518.9	1517.1	1505.3	1498.8
10°	1501.2	1501.8	1497.0	1487.6	1479.9
12.5°	1479.9	1479.3	1472.8	1468.1	1455.7
15°	1446.3	1449.8	1446.3	1439.8	1429.7
17.5°	1413.8	1413.8	1416.2	1404.9	1397.3
20°	1377.2	1379.0	1379.0	1370.1	1361.3
22.5°	1334.7	1340.0	1341.8	1332.3	1321.7
25°	1284.5	1294.6	1300.5	1291.0	1279.8
27.5°	1223.7	1239.1	1256.8	1249.7	1237.3
30°	1155.8	1178.3	1207.8	1201.9	1193.0
32.5°	1091.5	1113.9	1154.6	1152.3	1147.6
35°	1033.0	1047.2	1095.0	1100.9	1096.8
37.5°	977.6	990.5	1035.4	1049.0	1045.4
40°	919.1	933.3	968.7	992.9	994.1
42.5°	861.3	874.8	903.8	938.6	938.6
45°	799.9	813.4	840.0	878.4	883.1
47.5°	739.7	753.8	779.8	818.2	825.8
50°	680.6	693.6	719.6	756.8	768.6
52.5°	619.2	633.4	658.8	693.0	710.1
55°	560.2	569.7	597.4	630.5	648.8
57.5°	498.8	507.7	539.0	567.3	586.2
60°	439.8	451.0	475.2	504.1	526.0
62.5°	383.1	394.9	415.6	441.0	465.8
65°	328.2	337.1	357.1	382.5	404.4
67.5°	275.1	282.8	302.8	320.5	343.6
70°	221.4	231.4	246.2	263.3	278.0
72.5°	178.3	182.4	194.8	207.2	222.5
75°	131.6	138.7	148.8	155.8	164.7
77.5°	94.4	98.6	104.5	110.4	118.7
80°	63.2	64.9	70.2	71.4	77.9
82.5°	38.4	39.6	40.7	41.3	43.7
85°	20.7	20.7	20.7	19.5	19.5
87.5°	11.8	11.8	10.0	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)