

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: P556879

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-97-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: P556879
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-50-UNV-81-97-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

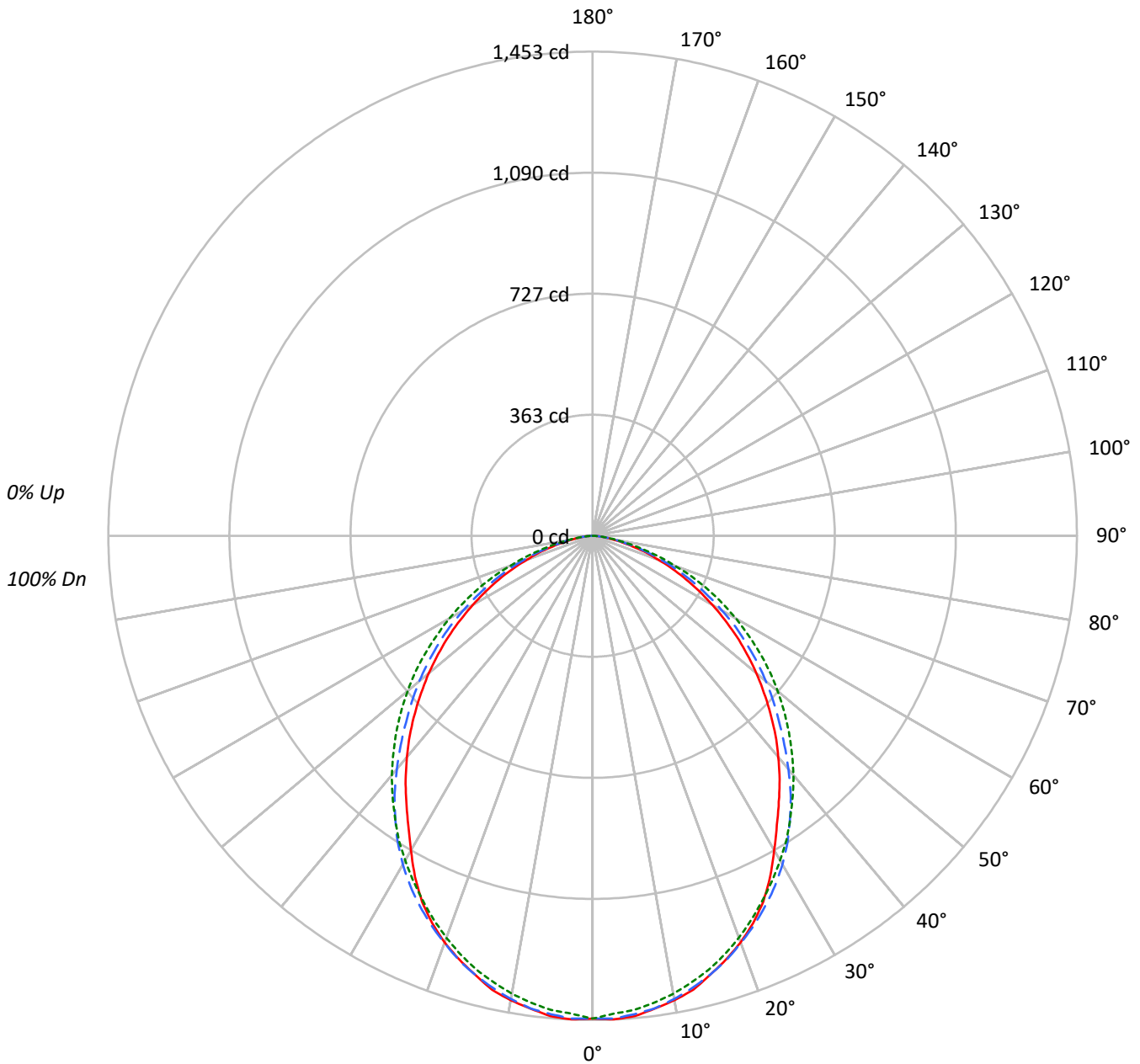
Lumens per Lamp: N/A
Luminaire Lumens: 3350.0 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3899	3899	3899
5°	3909	3893	3860
10°	3868	3857	3813
15°	3799	3799	3755
20°	3718	3723	3676
25°	3596	3641	3583
30°	3386	3539	3495
35°	3200	3392	3397
40°	3044	3209	3293
45°	2870	3014	3169
50°	2686	2840	3034
55°	2478	2643	2870
60°	2232	2412	2669
65°	1971	2144	2428
70°	1642	1826	2063
75°	1290	1459	1615
80°	924	1026	1139
85°	602	602	568



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.4	4.1
10°-20°	383.2	11.4
20°-30°	560.0	16.7
30°-40°	635.7	19.0
40°-50°	613.6	18.3
50°-60°	506.2	15.1
60°-70°	337.1	10.1
70°-80°	150.8	4.5
80°-90°	27.0	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°	1079.6	32.2
0°-40°	1715.3	51.2
0°-60°	2835.1	84.6
0°-90°	3350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3350.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1449	1449	1449	1449	1449	
5°	1447	1447	1441	1433	1429	137
15°	1364	1367	1364	1358	1348	384
25°	1211	1221	1226	1217	1207	555
35°	974	987	1032	1038	1034	610
45°	754	767	792	828	833	582
55°	528	537	563	594	612	471
65°	310	318	337	361	381	307
75°	124	131	140	147	155	136
85°	20	20	20	18	18	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1448.8	1448.8	1448.8	1448.8	1448.8
2.5°	1452.7	1453.2	1449.9	1441.0	1435.4
5°	1447.1	1446.6	1441.0	1433.2	1428.8
7.5°	1431.0	1432.1	1430.4	1419.3	1413.2
10°	1415.4	1416.0	1411.5	1402.6	1395.4
12.5°	1395.4	1394.8	1388.7	1384.2	1372.5
15°	1363.6	1367.0	1363.6	1357.5	1348.0
17.5°	1333.0	1333.0	1335.2	1324.7	1317.4
20°	1298.5	1300.2	1300.2	1291.8	1283.5
22.5°	1258.4	1263.4	1265.1	1256.2	1246.2
25°	1211.1	1220.6	1226.2	1217.2	1206.7
27.5°	1153.8	1168.3	1185.0	1178.3	1166.6
30°	1089.8	1110.9	1138.8	1133.2	1124.9
32.5°	1029.1	1050.3	1088.7	1086.5	1082.0
35°	974.0	987.4	1032.5	1038.0	1034.1
37.5°	921.7	933.9	976.2	989.0	985.7
40°	866.6	880.0	913.4	936.2	937.3
42.5°	812.1	824.9	852.1	885.0	885.0
45°	754.2	767.0	792.0	828.2	832.6
47.5°	697.4	710.8	735.2	771.4	778.7
50°	641.7	654.0	678.5	713.5	724.7
52.5°	583.9	597.2	621.1	653.4	669.6
55°	528.2	537.1	563.3	594.4	611.7
57.5°	470.3	478.7	508.2	534.9	552.7
60°	414.7	425.2	448.1	475.3	495.9
62.5°	361.2	372.4	391.8	415.8	439.1
65°	309.5	317.8	336.7	360.7	381.3
67.5°	259.4	266.6	285.5	302.2	323.9
70°	208.7	218.2	232.1	248.2	262.2
72.5°	168.1	172.0	183.7	195.4	209.8
75°	124.1	130.8	140.3	146.9	155.3
77.5°	89.1	92.9	98.5	104.1	111.9
80°	59.6	61.2	66.2	67.3	73.5
82.5°	36.2	37.3	38.4	39.0	41.2
85°	19.5	19.5	19.5	18.4	18.4
87.5°	11.1	11.1	9.5	7.8	5.6
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)