

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: P556789

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-86-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: P556789
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-40-UNV-80-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

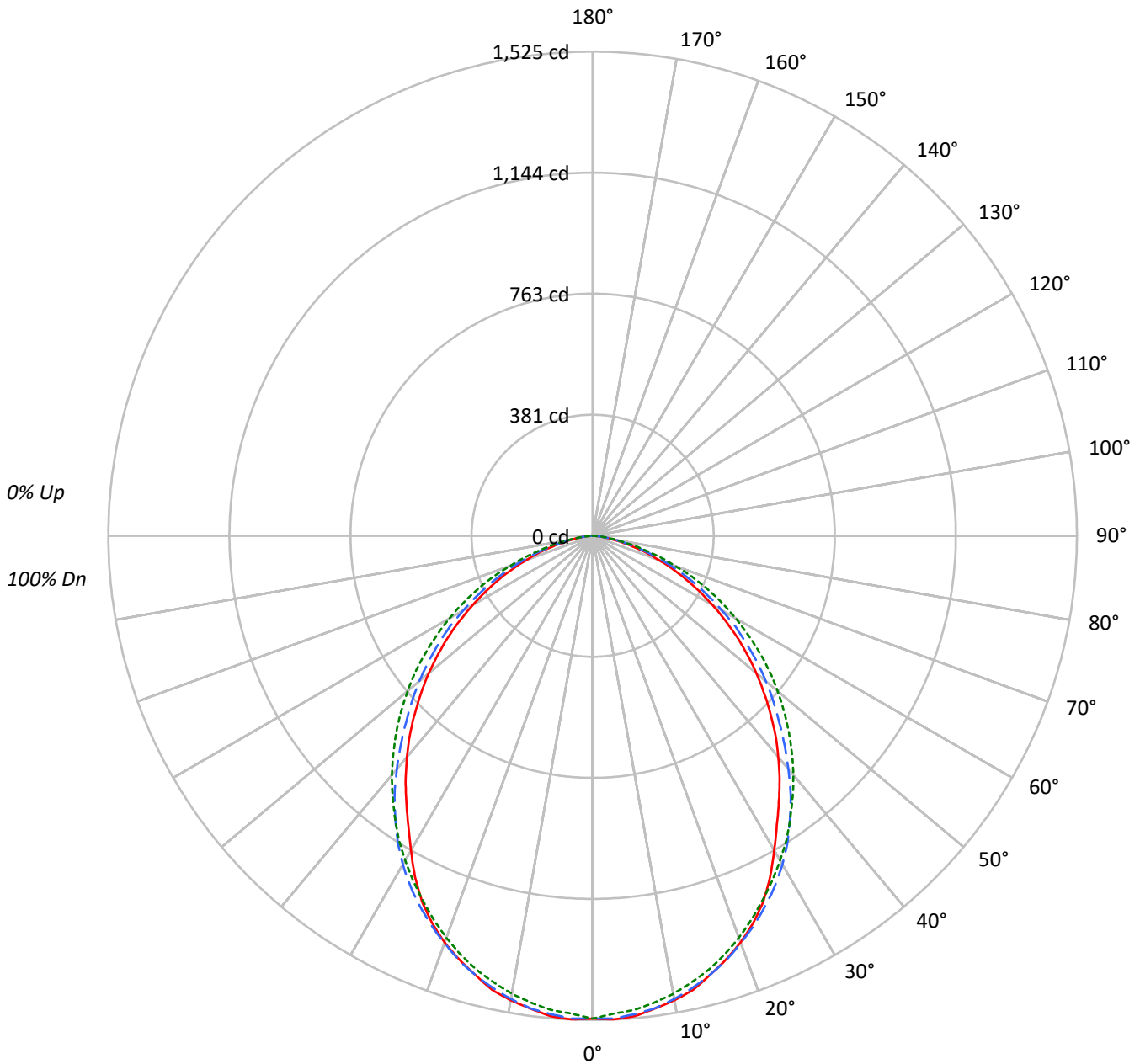
Lumens per Lamp: N/A
Luminaire Lumens: 3516.0 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): 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°	4092	4092	4092
5°	4103	4085	4051
10°	4059	4048	4002
15°	3987	3987	3942
20°	3903	3908	3858
25°	3774	3821	3760
30°	3554	3714	3668
35°	3358	3560	3566
40°	3195	3367	3456
45°	3012	3164	3326
50°	2820	2981	3184
55°	2601	2774	3012
60°	2342	2531	2801
65°	2068	2250	2548
70°	1724	1917	2164
75°	1355	1530	1695
80°	969	1077	1195
85°	630	630	596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.2	4.1
10°-20°	402.2	11.4
20°-30°	587.7	16.7
30°-40°	667.2	19.0
40°-50°	644.0	18.3
50°-60°	531.3	15.1
60°-70°	353.8	10.1
70°-80°	158.3	4.5
80°-90°	28.3	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°	1133.1	32.2
0°-40°	1800.3	51.2
0°-60°	2975.6	84.6
0°-90°	3516.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3516.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1519	1518	1512	1504	1500	144
15°	1431	1435	1431	1425	1415	403
25°	1271	1281	1287	1278	1266	582
35°	1022	1036	1084	1090	1085	641
45°	792	805	831	869	874	611
55°	554	564	591	624	642	495
65°	325	334	353	378	400	322
75°	130	137	147	154	163	142
85°	20	20	20	19	19	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1520.6	1520.6	1520.6	1520.6	1520.6
2.5°	1524.7	1525.3	1521.7	1512.4	1506.6
5°	1518.8	1518.2	1512.4	1504.2	1499.5
7.5°	1501.9	1503.1	1501.3	1489.6	1483.2
10°	1485.5	1486.1	1481.4	1472.1	1464.5
12.5°	1464.5	1463.9	1457.5	1452.8	1440.5
15°	1431.2	1434.7	1431.2	1424.8	1414.8
17.5°	1399.1	1399.1	1401.4	1390.3	1382.7
20°	1362.9	1364.6	1364.6	1355.8	1347.1
22.5°	1320.8	1326.1	1327.8	1318.5	1307.9
25°	1271.1	1281.1	1286.9	1277.6	1266.5
27.5°	1211.0	1226.2	1243.7	1236.7	1224.4
30°	1143.8	1166.0	1195.2	1189.4	1180.6
32.5°	1080.1	1102.3	1142.6	1140.3	1135.6
35°	1022.3	1036.3	1083.6	1089.5	1085.4
37.5°	967.4	980.2	1024.6	1038.1	1034.6
40°	909.5	923.6	958.6	982.6	983.7
42.5°	852.3	865.7	894.4	928.8	928.8
45°	791.5	805.0	831.3	869.2	873.9
47.5°	732.0	746.0	771.7	809.7	817.2
50°	673.5	686.4	712.1	748.9	760.6
52.5°	612.8	626.8	651.9	685.8	702.7
55°	554.4	563.7	591.2	623.9	642.0
57.5°	493.6	502.4	533.3	561.4	580.1
60°	435.2	446.3	470.3	498.9	520.5
62.5°	379.1	390.8	411.3	436.4	460.9
65°	324.8	333.6	353.4	378.5	400.2
67.5°	272.2	279.8	299.7	317.2	340.0
70°	219.1	229.0	243.6	260.5	275.1
72.5°	176.4	180.5	192.8	205.0	220.2
75°	130.3	137.3	147.2	154.2	163.0
77.5°	93.5	97.6	103.4	109.2	117.4
80°	62.5	64.3	69.5	70.7	77.1
82.5°	38.0	39.1	40.3	40.9	43.2
85°	20.4	20.4	20.4	19.3	19.3
87.5°	11.7	11.7	9.9	8.2	5.8
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)