

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: P556787

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-85-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: P556787
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-80-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

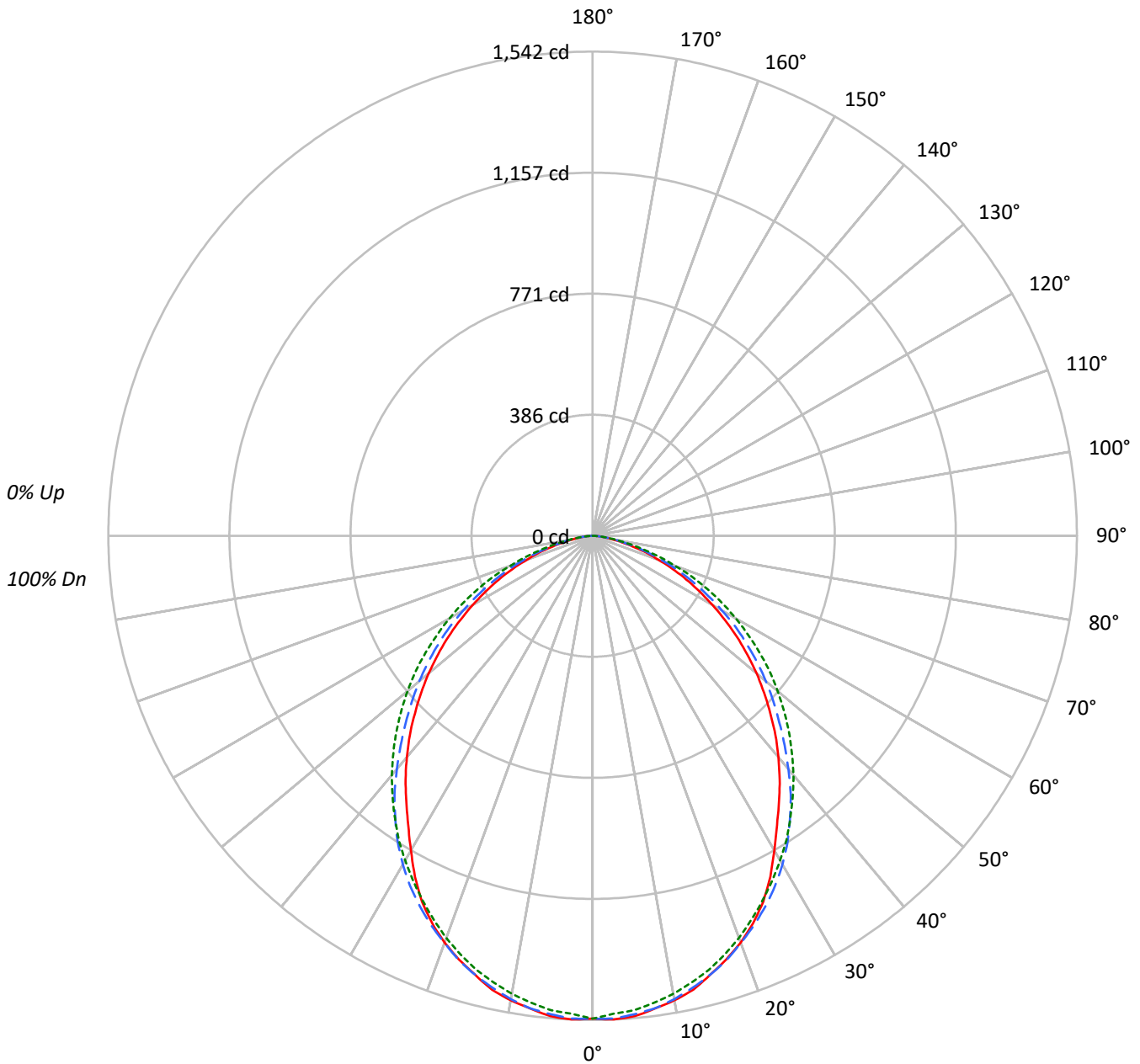
Lumens per Lamp: N/A
Luminaire Lumens: 3556.0 lumens
Efficiency: N/A
Efficacy: 106.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4138	4138	4138
5°	4149	4132	4097
10°	4105	4094	4047
15°	4033	4033	3986
20°	3947	3952	3901
25°	3817	3865	3803
30°	3594	3756	3710
35°	3396	3600	3606
40°	3231	3406	3495
45°	3046	3199	3364
50°	2852	3015	3220
55°	2631	2805	3046
60°	2369	2560	2833
65°	2092	2276	2577
70°	1744	1939	2190
75°	1370	1548	1713
80°	979	1089	1209
85°	639	639	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	4.1
10°-20°	406.8	11.4
20°-30°	594.4	16.7
30°-40°	674.7	19.0
40°-50°	651.4	18.3
50°-60°	537.3	15.1
60°-70°	357.8	10.1
70°-80°	160.1	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°	1146.0	32.2
0°-40°	1820.7	51.2
0°-60°	3009.4	84.6
0°-90°	3556.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3556.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1538	1538	1538	1538	1538	
5°	1536	1536	1530	1521	1517	145
15°	1448	1451	1448	1441	1431	408
25°	1286	1296	1302	1292	1281	589
35°	1034	1048	1096	1102	1098	648
45°	800	814	841	879	884	618
55°	561	570	598	631	649	500
65°	328	337	357	383	405	326
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°	1537.9	1537.9	1537.9	1537.9	1537.9
2.5°	1542.0	1542.6	1539.1	1529.6	1523.7
5°	1536.1	1535.5	1529.6	1521.3	1516.6
7.5°	1519.0	1520.2	1518.4	1506.6	1500.1
10°	1502.4	1503.0	1498.3	1488.8	1481.2
12.5°	1481.2	1480.6	1474.1	1469.3	1456.9
15°	1447.5	1451.0	1447.5	1441.0	1430.9
17.5°	1415.0	1415.0	1417.4	1406.1	1398.4
20°	1378.4	1380.1	1380.1	1371.3	1362.4
22.5°	1335.8	1341.1	1342.9	1333.5	1322.8
25°	1285.6	1295.6	1301.6	1292.1	1280.9
27.5°	1224.7	1240.1	1257.8	1250.7	1238.3
30°	1156.8	1179.3	1208.8	1202.9	1194.0
32.5°	1092.4	1114.9	1155.6	1153.3	1148.5
35°	1033.9	1048.1	1096.0	1101.9	1097.7
37.5°	978.4	991.4	1036.3	1049.9	1046.3
40°	919.9	934.1	969.5	993.7	994.9
42.5°	862.0	875.6	904.5	939.4	939.4
45°	800.5	814.1	840.7	879.1	883.9
47.5°	740.3	754.5	780.5	818.9	826.5
50°	681.2	694.2	720.2	757.4	769.2
52.5°	619.8	633.9	659.3	693.6	710.7
55°	560.7	570.1	597.9	631.0	649.3
57.5°	499.2	508.1	539.4	567.8	586.7
60°	440.2	451.4	475.6	504.6	526.4
62.5°	383.4	395.3	415.9	441.3	466.1
65°	328.5	337.4	357.4	382.8	404.7
67.5°	275.3	283.0	303.1	320.8	343.9
70°	221.6	231.6	246.4	263.5	278.3
72.5°	178.4	182.6	195.0	207.4	222.7
75°	131.8	138.8	148.9	156.0	164.8
77.5°	94.5	98.7	104.6	110.5	118.8
80°	63.2	65.0	70.3	71.5	78.0
82.5°	38.4	39.6	40.8	41.4	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)