

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: P556663

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-87-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: P556663
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-30-UNV-80-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

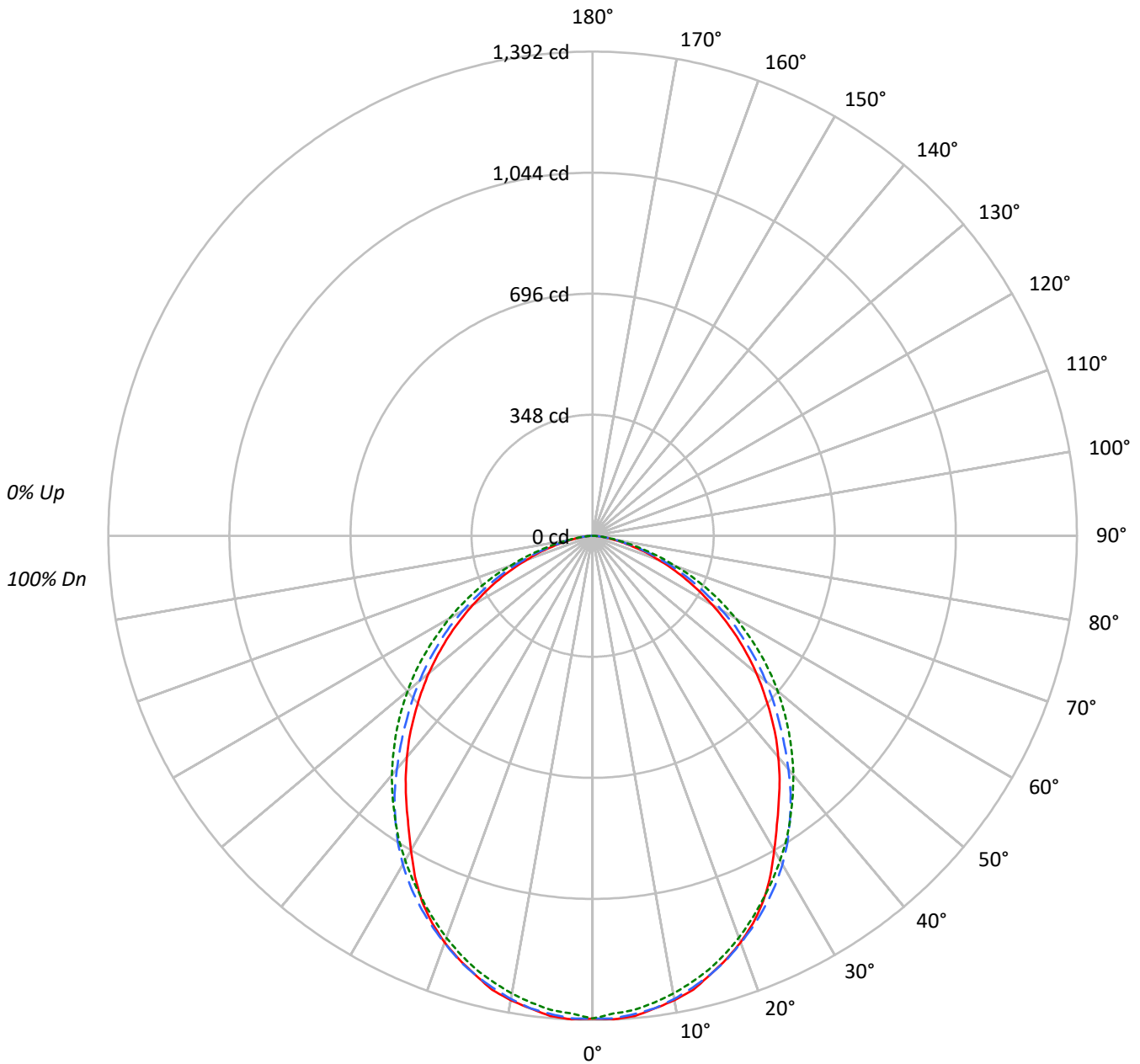
Lumens per Lamp: N/A
Luminaire Lumens: 3209.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556663

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-80-87-EDD

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°	3735	3735	3735
5°	3744	3729	3697
10°	3705	3695	3652
15°	3639	3639	3597
20°	3562	3567	3521
25°	3445	3487	3432
30°	3244	3389	3348
35°	3065	3249	3254
40°	2916	3073	3154
45°	2749	2887	3035
50°	2573	2721	2906
55°	2374	2532	2749
60°	2138	2310	2556
65°	1887	2054	2325
70°	1573	1749	1976
75°	1236	1397	1547
80°	883	982	1091
85°	577	577	543



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	4.1
10°-20°	367.1	11.4
20°-30°	536.4	16.7
30°-40°	608.9	19.0
40°-50°	587.8	18.3
50°-60°	484.9	15.1
60°-70°	322.9	10.1
70°-80°	144.5	4.5
80°-90°	25.9	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°	1034.2	32.2
0°-40°	1643.1	51.2
0°-60°	2715.8	84.6
0°-90°	3209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3209.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1388	1388	1388	1388	1388	
5°	1386	1386	1380	1373	1369	131
15°	1306	1309	1306	1300	1291	368
25°	1160	1169	1174	1166	1156	531
35°	933	946	989	994	991	585
45°	722	735	759	793	798	557
55°	506	514	540	569	586	452
65°	296	304	323	346	365	294
75°	119	125	134	141	149	130
85°	19	19	19	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1387.8	<i>1387.8</i>	1387.8	1387.8	1387.8
2.5°	<i>1391.5</i>	<i>1392.1</i>	<i>1388.9</i>	<i>1380.3</i>	<i>1375.0</i>
5°	1386.2	<i>1385.7</i>	1380.3	1372.9	1368.6
7.5°	1370.7	<i>1371.8</i>	1370.2	1359.6	1353.7
10°	1355.8	<i>1356.4</i>	1352.1	1343.6	1336.6
12.5°	1336.6	<i>1336.1</i>	1330.2	1326.0	1314.8
15°	1306.2	<i>1309.4</i>	1306.2	1300.4	1291.3
17.5°	1276.9	<i>1276.9</i>	1279.0	1268.9	1262.0
20°	1243.9	<i>1245.5</i>	1245.5	1237.5	1229.5
22.5°	1205.5	<i>1210.3</i>	1211.9	1203.3	1193.7
25°	1160.2	<i>1169.2</i>	1174.5	1166.0	1155.9
27.5°	1105.2	<i>1119.1</i>	1135.1	1128.7	1117.5
30°	1043.9	<i>1064.2</i>	1090.8	1085.5	1077.5
32.5°	985.8	<i>1006.1</i>	1042.9	1040.7	1036.5
35°	933.0	<i>945.8</i>	989.0	994.3	990.6
37.5°	882.9	<i>894.6</i>	935.2	947.4	944.2
40°	830.1	<i>842.9</i>	874.9	896.8	897.8
42.5°	777.9	<i>790.1</i>	816.3	847.7	847.7
45°	722.4	<i>734.7</i>	758.7	793.3	797.6
47.5°	668.0	<i>680.8</i>	704.3	739.0	745.9
50°	614.7	<i>626.5</i>	649.9	683.5	694.2
52.5°	559.3	<i>572.1</i>	595.0	625.9	641.4
55°	506.0	<i>514.5</i>	539.6	569.4	585.9
57.5°	450.5	<i>458.5</i>	486.8	512.4	529.4
60°	397.2	<i>407.3</i>	429.2	455.3	475.0
62.5°	346.0	<i>356.7</i>	375.3	398.3	420.7
65°	296.4	<i>304.4</i>	322.6	345.5	365.2
67.5°	248.5	<i>255.4</i>	273.5	289.5	310.3
70°	199.9	<i>209.0</i>	222.3	237.8	251.1
72.5°	161.0	<i>164.7</i>	175.9	187.1	201.0
75°	118.9	<i>125.3</i>	134.4	140.8	148.8
77.5°	85.3	<i>89.0</i>	94.4	99.7	107.2
80°	57.0	<i>58.6</i>	63.4	64.5	70.4
82.5°	34.7	<i>35.7</i>	36.8	37.3	39.5
85°	18.7	<i>18.7</i>	18.7	17.6	17.6
87.5°	10.7	<i>10.7</i>	9.1	7.5	5.3
90°	0.0	<i>0.0</i>	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)