

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: P556881

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-82-84-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: P556881
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-82-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

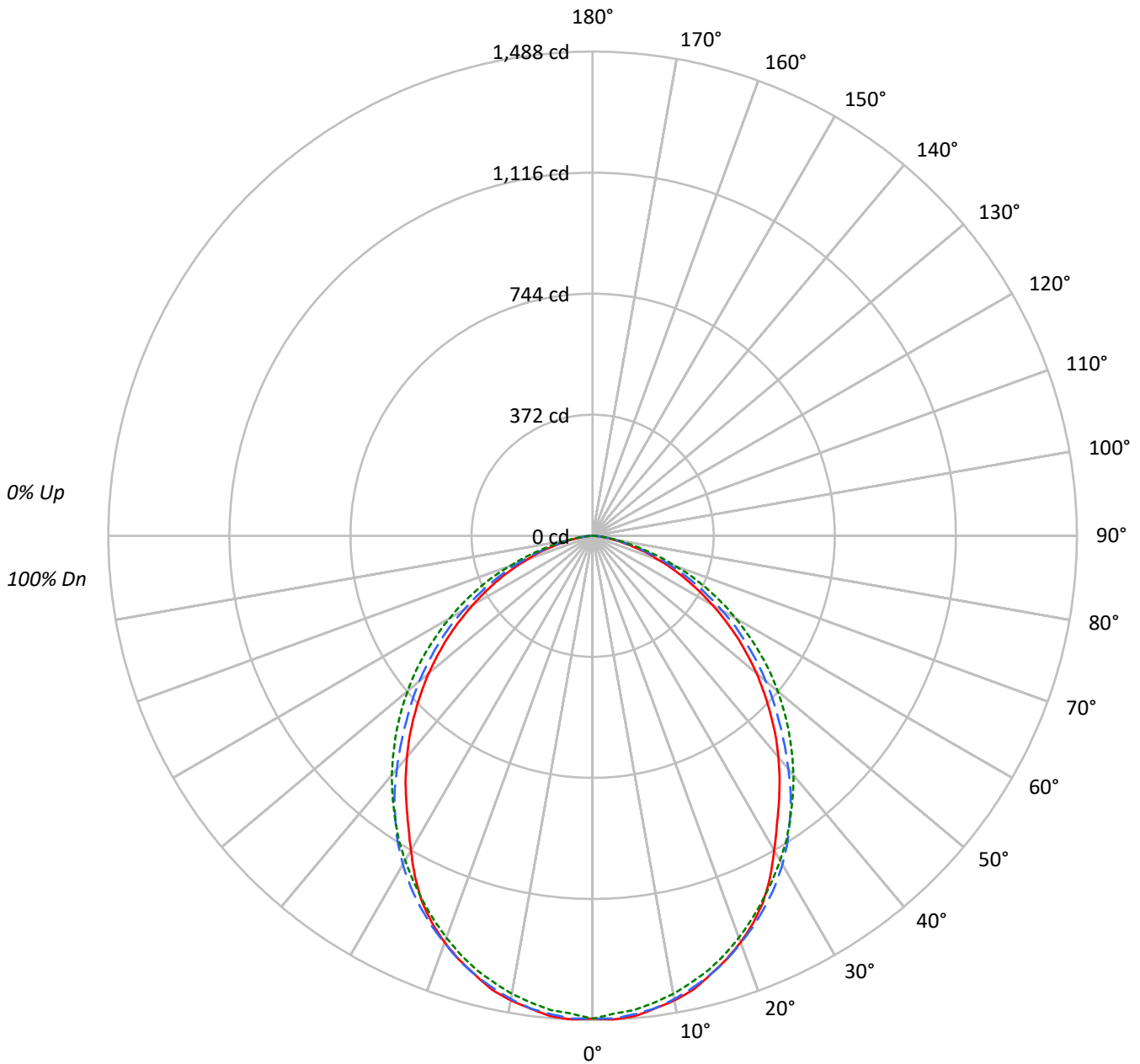
Lumens per Lamp: N/A
Luminaire Lumens: 3431.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3993	3993	3993
5°	4004	3987	3953
10°	3961	3950	3905
15°	3891	3891	3846
20°	3808	3813	3764
25°	3683	3729	3670
30°	3468	3624	3580
35°	3277	3474	3479
40°	3118	3286	3372
45°	2939	3087	3245
50°	2752	2909	3107
55°	2538	2707	2939
60°	2286	2470	2733
65°	2018	2196	2486
70°	1682	1870	2113
75°	1321	1494	1653
80°	945	1051	1165
85°	618	618	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	4.1
10°-20°	392.5	11.4
20°-30°	573.5	16.7
30°-40°	651.0	19.0
40°-50°	628.5	18.3
50°-60°	518.4	15.1
60°-70°	345.2	10.1
70°-80°	154.5	4.5
80°-90°	27.6	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°	1105.7	32.2
0°-40°	1756.7	51.2
0°-60°	2903.6	84.6
0°-90°	3431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1484	1484	1484	1484	1484	
5°	1482	1482	1476	1468	1463	140
15°	1397	1400	1397	1390	1381	394
25°	1240	1250	1256	1247	1236	568
35°	998	1011	1057	1063	1059	625
45°	772	786	811	848	853	596
55°	541	550	577	609	626	483
65°	317	326	345	369	390	314
75°	127	134	144	150	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1483.8	1483.8	1483.8	1483.8	1483.8
2.5°	1487.8	1488.4	1485.0	1475.8	1470.1
5°	1482.1	1481.5	1475.8	1467.9	1463.3
7.5°	1465.6	1466.7	1465.0	1453.6	1447.3
10°	1449.6	1450.2	1445.6	1436.5	1429.1
12.5°	1429.1	1428.5	1422.3	1417.7	1405.7
15°	1396.6	1400.0	1396.6	1390.3	1380.6
17.5°	1365.3	1365.3	1367.5	1356.7	1349.3
20°	1329.9	1331.6	1331.6	1323.1	1314.5
22.5°	1288.9	1294.0	1295.7	1286.6	1276.3
25°	1240.4	1250.1	1255.8	1246.7	1235.9
27.5°	1181.7	1196.5	1213.6	1206.8	1194.8
30°	1116.1	1137.8	1166.3	1160.6	1152.1
32.5°	1054.0	1075.7	1115.0	1112.7	1108.2
35°	997.6	1011.3	1057.4	1063.1	1059.1
37.5°	944.0	956.5	999.9	1013.0	1009.5
40°	887.6	901.2	935.4	958.8	960.0
42.5°	831.7	844.8	872.7	906.4	906.4
45°	772.4	785.5	811.2	848.2	852.8
47.5°	714.3	727.9	753.0	790.1	797.5
50°	657.3	669.8	694.9	730.8	742.2
52.5°	598.0	611.7	636.2	669.2	685.8
55°	541.0	550.1	576.9	608.8	626.5
57.5°	481.7	490.2	520.4	547.8	566.1
60°	424.7	435.5	458.9	486.8	507.9
62.5°	370.0	381.4	401.3	425.8	449.8
65°	316.9	325.5	344.9	369.4	390.5
67.5°	265.6	273.1	292.4	309.5	331.8
70°	213.8	223.5	237.7	254.2	268.5
72.5°	172.2	176.1	188.1	200.1	214.9
75°	127.1	134.0	143.7	150.5	159.0
77.5°	91.2	95.2	100.9	106.6	114.6
80°	61.0	62.7	67.8	69.0	75.2
82.5°	37.1	38.2	39.3	39.9	42.2
85°	20.0	20.0	20.0	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)