

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: P556705

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-93-84-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: P556705
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-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

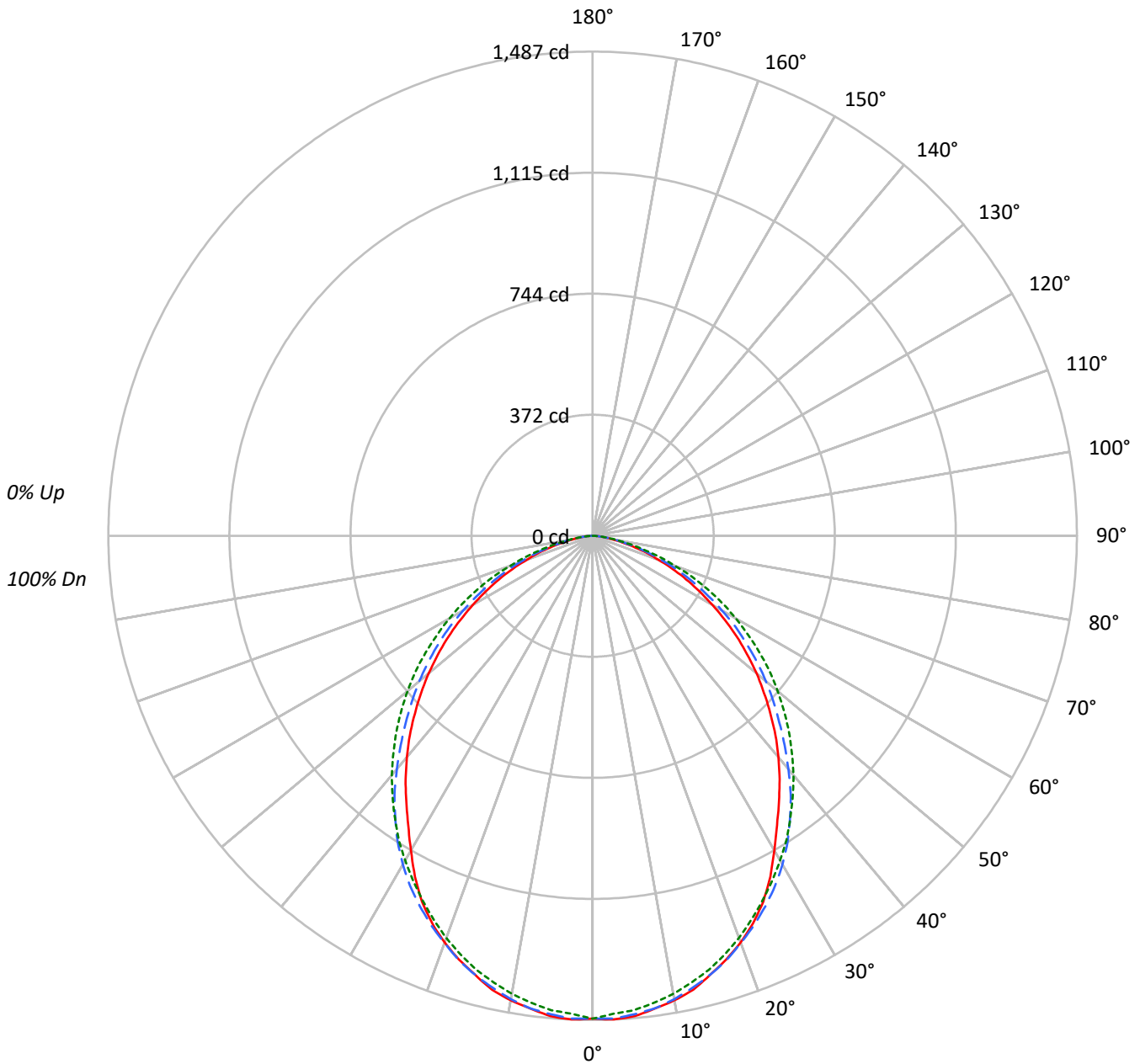
Lumens per Lamp: N/A
Luminaire Lumens: 3429.0 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556705

CATALOG NUMBER: FUSL-12-4-LD4-1STD-30-UNV-93-84-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°	3991	3991	3991
5°	4001	3984	3950
10°	3959	3948	3903
15°	3889	3889	3844
20°	3806	3811	3762
25°	3681	3727	3667
30°	3466	3622	3578
35°	3275	3472	3477
40°	3116	3284	3370
45°	2938	3085	3244
50°	2750	2907	3105
55°	2537	2705	2937
60°	2284	2468	2732
65°	2017	2195	2485
70°	1681	1869	2111
75°	1320	1493	1652
80°	945	1051	1165
85°	614	614	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.6	4.1
10°-20°	392.2	11.4
20°-30°	573.2	16.7
30°-40°	650.6	19.0
40°-50°	628.1	18.3
50°-60°	518.1	15.1
60°-70°	345.0	10.1
70°-80°	154.4	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°	1105.1	32.2
0°-40°	1755.7	51.2
0°-60°	2901.9	84.6
0°-90°	3429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1483	1483	1483	1483	1483	
5°	1481	1481	1475	1467	1462	140
15°	1396	1399	1396	1390	1380	393
25°	1240	1249	1255	1246	1235	568
35°	997	1011	1057	1062	1058	625
45°	772	785	811	848	852	596
55°	541	550	576	608	626	483
65°	317	325	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°	1483.0	1483.0	1483.0	1483.0	1483.0
2.5°	1486.9	1487.5	1484.1	1475.0	1469.3
5°	1481.2	1480.7	1475.0	1467.0	1462.4
7.5°	1464.7	1465.9	1464.2	1452.8	1446.5
10°	1448.8	1449.3	1444.8	1435.7	1428.3
12.5°	1428.3	1427.7	1421.4	1416.9	1404.9
15°	1395.8	1399.2	1395.8	1389.5	1379.8
17.5°	1364.5	1364.5	1366.7	1355.9	1348.5
20°	1329.1	1330.8	1330.8	1322.3	1313.8
22.5°	1288.1	1293.2	1294.9	1285.8	1275.6
25°	1239.7	1249.4	1255.1	1246.0	1235.1
27.5°	1181.0	1195.8	1212.9	1206.1	1194.1
30°	1115.5	1137.1	1165.6	1159.9	1151.4
32.5°	1053.4	1075.0	1114.4	1112.1	1107.5
35°	997.0	1010.7	1056.8	1062.5	1058.5
37.5°	943.4	956.0	999.3	1012.4	1009.0
40°	887.0	900.7	934.9	958.3	959.4
42.5°	831.2	844.3	872.2	905.8	905.8
45°	772.0	785.1	810.7	847.7	852.3
47.5°	713.8	727.5	752.6	789.6	797.0
50°	656.9	669.4	694.5	730.4	741.8
52.5°	597.6	611.3	635.8	668.8	685.4
55°	540.7	549.8	576.5	608.4	626.1
57.5°	481.4	490.0	520.1	547.5	565.7
60°	424.4	435.3	458.6	486.5	507.6
62.5°	369.7	381.1	401.1	425.6	449.5
65°	316.8	325.3	344.7	369.2	390.3
67.5°	265.5	272.9	292.3	309.4	331.6
70°	213.6	223.3	237.6	254.1	268.3
72.5°	172.1	176.0	188.0	200.0	214.8
75°	127.0	133.9	143.6	150.4	158.9
77.5°	91.2	95.1	100.8	106.5	114.5
80°	61.0	62.7	67.8	68.9	75.2
82.5°	37.0	38.2	39.3	39.9	42.2
85°	19.9	19.9	19.9	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)