

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: P558234

Luminaire Tested: **FUSL-12-4-LD4-3STD-30-UNV-82-94-EDD-90**

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: P558234
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-LD4-3STD-30-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

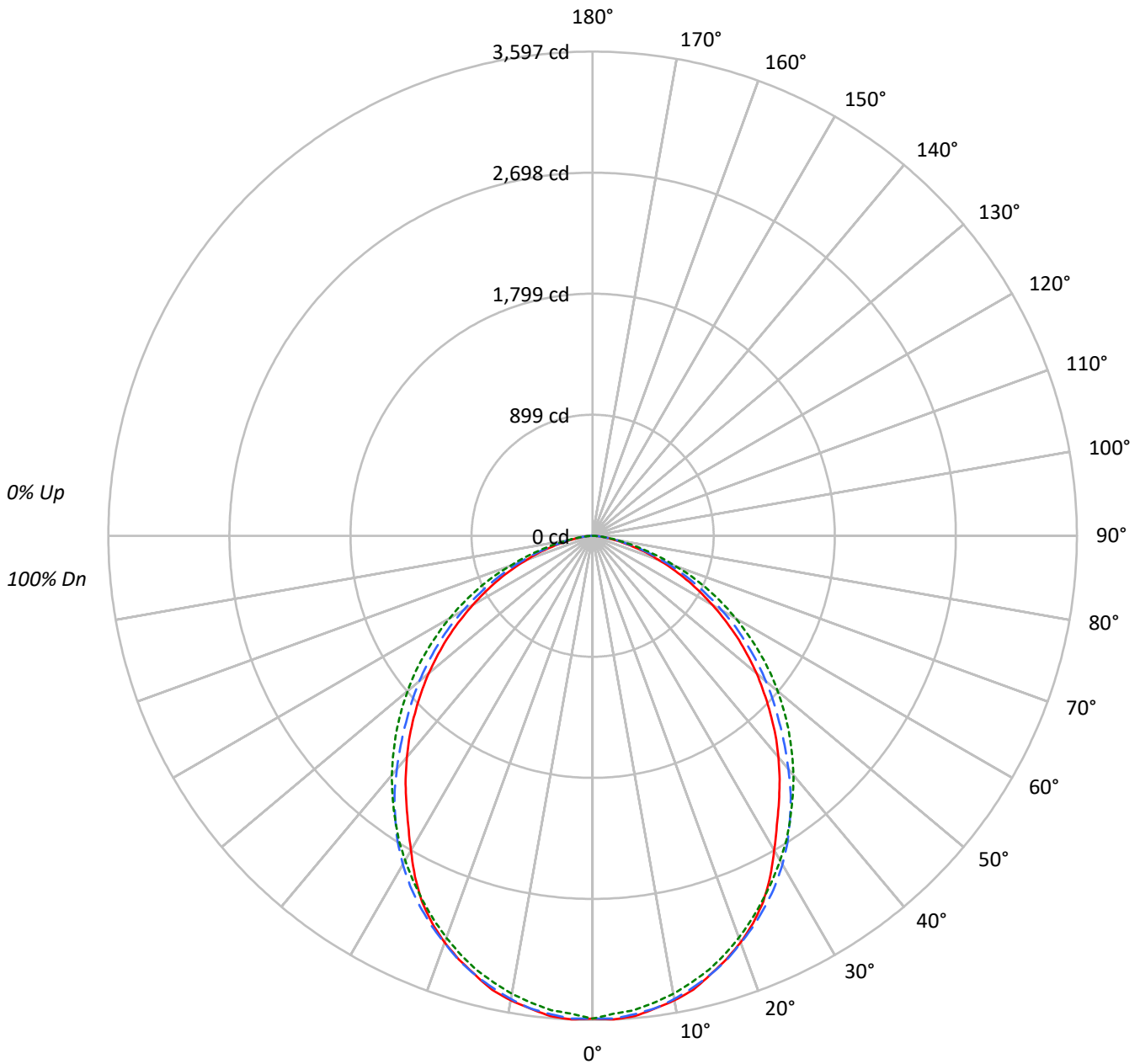
Lumens per Lamp: N/A
Luminaire Lumens: 8294.0 lumens
Efficiency: N/A
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	9652	9652	9652
5°	9678	9637	9555
10°	9575	9549	9440
15°	9405	9405	9298
20°	9206	9218	9100
25°	8903	9013	8870
30°	8384	8761	8653
35°	7922	8397	8411
40°	7537	7944	8152
45°	7106	7462	7845
50°	6651	7032	7511
55°	6135	6542	7105
60°	5525	5970	6608
65°	4879	5308	6010
70°	4066	4521	5106
75°	3195	3611	3998
80°	2284	2541	2819
85°	1488	1488	1405



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.7	4.1
10°-20°	948.8	11.4
20°-30°	1386.4	16.7
30°-40°	1573.8	19.0
40°-50°	1519.2	18.3
50°-60°	1253.3	15.1
60°-70°	834.6	10.1
70°-80°	373.5	4.5
80°-90°	66.8	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°	2672.9	32.2
0°-40°	4246.7	51.2
0°-60°	7019.2	84.6
0°-90°	8294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8294.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3587	3587	3587	3587	3587	
5°	3583	3581	3568	3548	3537	339
15°	3376	3384	3376	3361	3338	952
25°	2998	3022	3036	3014	2988	1373
35°	2412	2445	2556	2570	2560	1511
45°	1867	1899	1961	2050	2062	1441
55°	1308	1330	1394	1472	1514	1167
65°	766	787	834	893	944	760
75°	307	324	347	364	384	336
85°	48	48	48	46	46	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3586.9	3586.9	3586.9	3586.9	3586.9
2.5°	3596.6	3598.0	3589.7	3567.6	3553.9
5°	3582.8	3581.4	3567.6	3548.4	3537.3
7.5°	3542.8	3545.6	3541.5	3513.9	3498.7
10°	3504.3	3505.6	3494.6	3472.6	3454.7
12.5°	3454.7	3453.3	3438.1	3427.1	3398.2
15°	3376.1	3384.4	3376.1	3360.9	3337.5
17.5°	3300.3	3300.3	3305.8	3279.6	3261.7
20°	3214.9	3219.0	3219.0	3198.3	3177.7
22.5°	3115.7	3128.1	3132.2	3110.2	3085.3
25°	2998.5	3022.0	3035.7	3013.7	2987.5
27.5°	2856.6	2892.4	2933.8	2917.2	2888.3
30°	2698.1	2750.5	2819.4	2805.6	2784.9
32.5°	2547.9	2600.3	2695.4	2689.9	2678.8
35°	2411.5	2444.6	2556.2	2570.0	2560.3
37.5°	2282.0	2312.3	2417.0	2448.7	2440.4
40°	2145.6	2178.6	2261.3	2317.8	2320.6
42.5°	2010.5	2042.2	2109.7	2191.0	2191.0
45°	1867.2	1898.9	1960.9	2050.5	2061.5
47.5°	1726.6	1759.7	1820.3	1909.9	1927.8
50°	1588.8	1619.2	1679.8	1766.6	1794.2
52.5°	1445.5	1478.6	1537.9	1617.8	1657.7
55°	1307.7	1329.8	1394.5	1471.7	1514.4
57.5°	1164.4	1185.1	1258.1	1324.3	1368.4
60°	1026.6	1052.8	1109.3	1176.8	1227.8
62.5°	894.3	921.9	970.1	1029.4	1087.2
65°	766.2	786.8	833.7	892.9	943.9
67.5°	642.1	660.1	706.9	748.3	802.0
70°	516.8	540.2	574.6	614.6	649.0
72.5°	416.2	425.8	454.7	483.7	519.5
75°	307.3	323.8	347.3	363.8	384.5
77.5°	220.5	230.1	243.9	257.7	277.0
80°	147.4	151.6	164.0	166.7	181.9
82.5°	89.6	92.3	95.1	96.5	102.0
85°	48.2	48.2	48.2	45.5	45.5
87.5°	27.6	27.6	23.4	19.3	13.8
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)