

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: P558301

Luminaire Tested: **FUSL-12-4-LD4-3STD-35-UNV-82-96-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: P558301
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-35-UNV-82-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

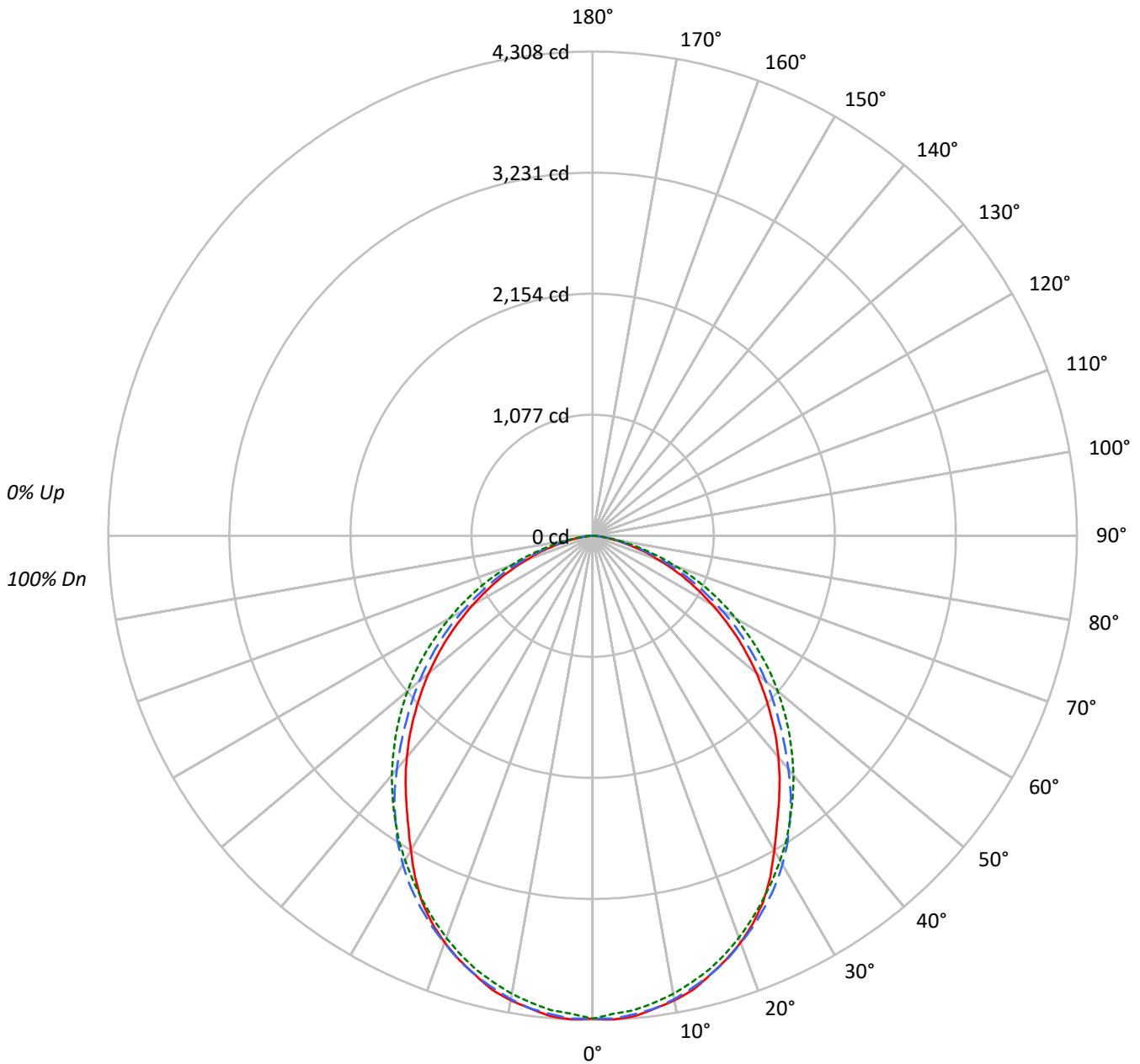
Lumens per Lamp: N/A
Luminaire Lumens: 9934.0 lumens
Efficiency: N/A
Efficacy: 99.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	11561	11561	11561
5°	11592	11543	11445
10°	11469	11437	11307
15°	11265	11265	11137
20°	11027	11041	10899
25°	10663	10796	10624
30°	10041	10493	10365
35°	9488	10058	10074
40°	9027	9514	9764
45°	8511	8938	9396
50°	7967	8423	8996
55°	7348	7836	8510
60°	6618	7150	7915
65°	5843	6358	7199
70°	4869	5415	6117
75°	3827	4324	4788
80°	2737	3044	3377
85°	1785	1785	1683



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.5	4.1
10°-20°	1136.4	11.4
20°-30°	1660.6	16.7
30°-40°	1884.9	19.0
40°-50°	1819.6	18.3
50°-60°	1501.1	15.1
60°-70°	999.6	10.1
70°-80°	447.3	4.5
80°-90°	80.0	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°	3201.4	32.2
0°-40°	5086.4	51.2
0°-60°	8407.1	84.6
0°-90°	9934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9934.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4296	4296	4296	4296	4296	
5°	4291	4290	4273	4250	4237	406
15°	4044	4054	4044	4026	3998	1140
25°	3591	3620	3636	3610	3578	1645
35°	2888	2928	3062	3078	3067	1810
45°	2236	2274	2349	2456	2469	1726
55°	1566	1593	1670	1763	1814	1398
65°	918	942	998	1070	1131	910
75°	368	388	416	436	460	402
85°	58	58	58	54	54	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4296.2	4296.2	4296.2	4296.2	4296.2
2.5°	4307.8	4309.4	4299.5	4273.1	4256.6
5°	4291.2	4289.6	4273.1	4250.0	4236.8
7.5°	4243.4	4246.7	4241.7	4208.7	4190.6
10°	4197.2	4198.8	4185.6	4159.2	4137.8
12.5°	4137.8	4136.1	4117.9	4104.7	4070.1
15°	4043.7	4053.6	4043.7	4025.5	3997.5
17.5°	3952.9	3952.9	3959.5	3928.1	3906.7
20°	3850.6	3855.5	3855.5	3830.8	3806.0
22.5°	3731.7	3746.6	3751.5	3725.1	3695.4
25°	3591.4	3619.5	3636.0	3609.6	3578.2
27.5°	3421.4	3464.4	3513.9	3494.1	3459.4
30°	3231.6	3294.4	3376.9	3360.4	3335.6
32.5°	3051.7	3114.5	3228.3	3221.7	3208.5
35°	2888.3	2928.0	3061.6	3078.1	3066.6
37.5°	2733.2	2769.5	2894.9	2932.9	2923.0
40°	2569.8	2609.4	2708.4	2776.1	2779.4
42.5°	2408.0	2446.0	2526.9	2624.3	2624.3
45°	2236.4	2274.4	2348.6	2455.9	2469.1
47.5°	2068.1	2107.7	2180.3	2287.6	2309.0
50°	1903.0	1939.3	2011.9	2115.9	2148.9
52.5°	1731.4	1771.0	1841.9	1937.7	1985.5
55°	1566.3	1592.7	1670.3	1762.7	1813.9
57.5°	1394.7	1419.4	1506.9	1586.1	1638.9
60°	1229.6	1261.0	1328.6	1409.5	1470.6
62.5°	1071.2	1104.2	1161.9	1232.9	1302.2
65°	917.7	942.4	998.5	1069.5	1130.6
67.5°	769.1	790.6	846.7	896.2	960.6
70°	618.9	647.0	688.3	736.1	777.4
72.5°	498.4	510.0	544.7	579.3	622.2
75°	368.1	387.9	415.9	435.7	460.5
77.5°	264.1	275.6	292.1	308.6	331.7
80°	176.6	181.6	196.4	199.7	217.9
82.5°	107.3	110.6	113.9	115.5	122.1
85°	57.8	57.8	57.8	54.5	54.5
87.5°	33.0	33.0	28.1	23.1	16.5
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)