

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: P557005

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-81-96-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: P557005
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-LD4-2HI-35-UNV-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 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

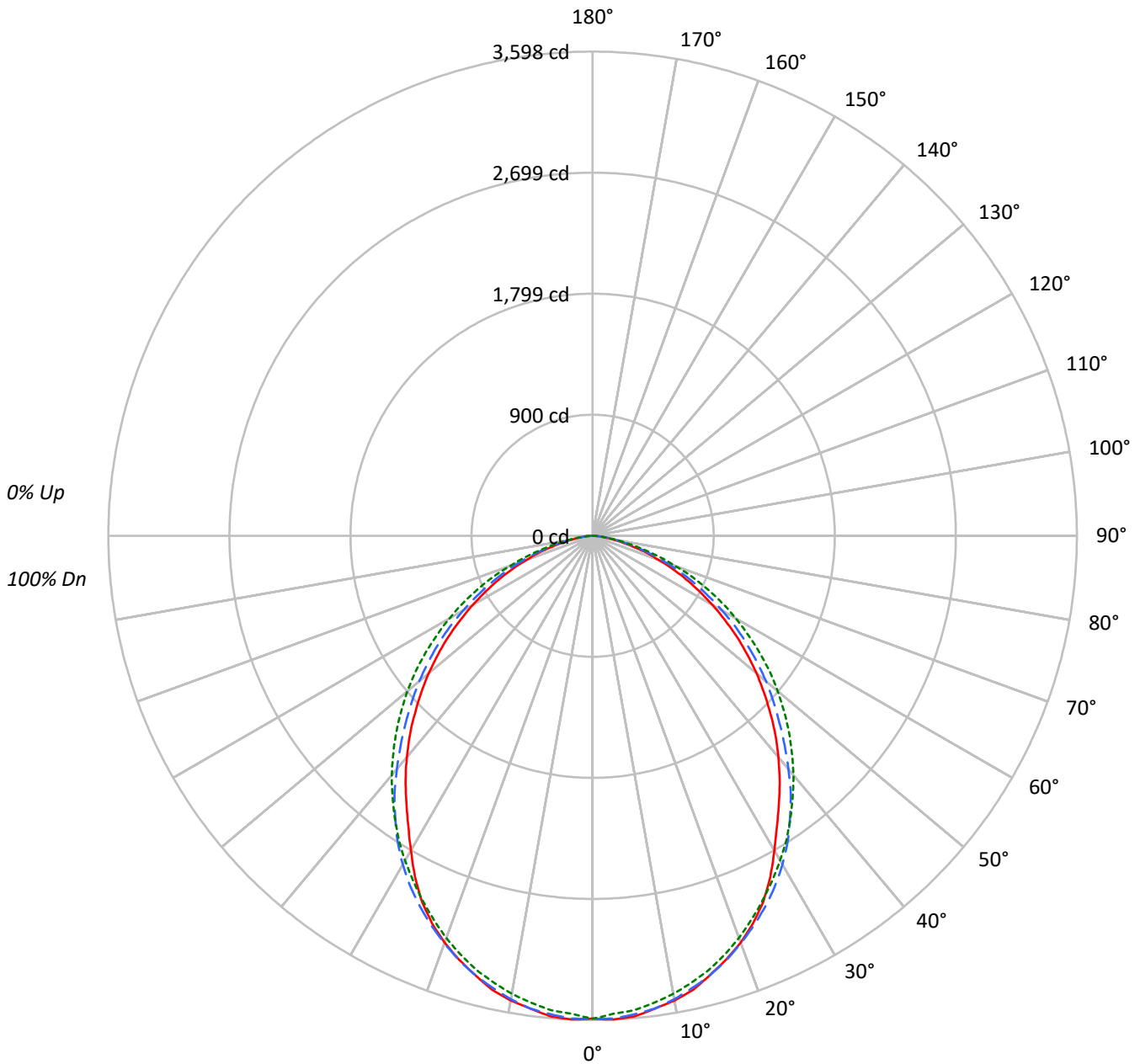
Lumens per Lamp: N/A
Luminaire Lumens: 8298.0 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9657	9657	9657
5°	9683	9642	9560
10°	9580	9554	9444
15°	9410	9410	9302
20°	9211	9223	9104
25°	8907	9018	8875
30°	8388	8765	8658
35°	7926	8401	8415
40°	7541	7947	8156
45°	7109	7466	7849
50°	6655	7036	7515
55°	6138	6546	7109
60°	5528	5973	6611
65°	4881	5311	6013
70°	4068	4523	5109
75°	3196	3612	3999
80°	2286	2543	2820
85°	1491	1491	1405



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	337.9	4.1
10°-20°	949.2	11.4
20°-30°	1387.1	16.7
30°-40°	1574.5	19.0
40°-50°	1520.0	18.3
50°-60°	1253.9	15.1
60°-70°	835.0	10.1
70°-80°	373.6	4.5
80°-90°	66.9	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°	2674.2	32.2
0°-40°	4248.7	51.2
0°-60°	7022.6	84.6
0°-90°	8298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3589	3589	3589	3589	3589	
5°	3584	3583	3569	3550	3539	339
15°	3378	3386	3378	3363	3339	952
25°	3000	3023	3037	3015	2989	1374
35°	2413	2446	2557	2571	2562	1512
45°	1868	1900	1962	2052	2062	1441
55°	1308	1330	1395	1472	1515	1168
65°	766	787	834	893	944	760
75°	307	324	347	364	385	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°	3588.7	3588.7	3588.7	3588.7	3588.7
2.5°	3598.3	3599.7	3591.4	3569.4	3555.6
5°	3584.5	3583.2	3569.4	3550.1	3539.0
7.5°	3544.6	3547.3	3543.2	3515.6	3500.4
10°	3506.0	3507.3	3496.3	3474.2	3456.3
12.5°	3456.3	3454.9	3439.8	3428.7	3399.8
15°	3377.7	3386.0	3377.7	3362.6	3339.1
17.5°	3301.9	3301.9	3307.4	3281.2	3263.3
20°	3216.4	3220.6	3220.6	3199.9	3179.2
22.5°	3117.2	3129.6	3133.7	3111.7	3086.8
25°	3000.0	3023.4	3037.2	3015.1	2989.0
27.5°	2858.0	2893.8	2935.2	2918.6	2889.7
30°	2699.4	2751.8	2820.8	2807.0	2786.3
32.5°	2549.2	2601.5	2696.7	2691.2	2680.1
35°	2412.7	2445.8	2557.4	2571.2	2561.6
37.5°	2283.1	2313.4	2418.2	2449.9	2441.6
40°	2146.6	2179.7	2262.4	2318.9	2321.7
42.5°	2011.5	2043.2	2110.7	2192.1	2192.1
45°	1868.1	1899.8	1961.8	2051.5	2062.5
47.5°	1727.5	1760.6	1821.2	1910.8	1928.8
50°	1589.6	1619.9	1680.6	1767.5	1795.0
52.5°	1446.2	1479.3	1538.6	1618.6	1658.5
55°	1308.4	1330.4	1395.2	1472.4	1515.2
57.5°	1165.0	1185.7	1258.7	1324.9	1369.0
60°	1027.1	1053.3	1109.8	1177.4	1228.4
62.5°	894.8	922.3	970.6	1029.9	1087.8
65°	766.5	787.2	834.1	893.4	944.4
67.5°	642.5	660.4	707.3	748.6	802.4
70°	517.0	540.4	574.9	614.9	649.4
72.5°	416.4	426.0	455.0	483.9	519.8
75°	307.4	324.0	347.4	364.0	384.6
77.5°	220.6	230.2	244.0	257.8	277.1
80°	147.5	151.7	164.1	166.8	182.0
82.5°	89.6	92.4	95.1	96.5	102.0
85°	48.3	48.3	48.3	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)