

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: P557027

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-85-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: P557027
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-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

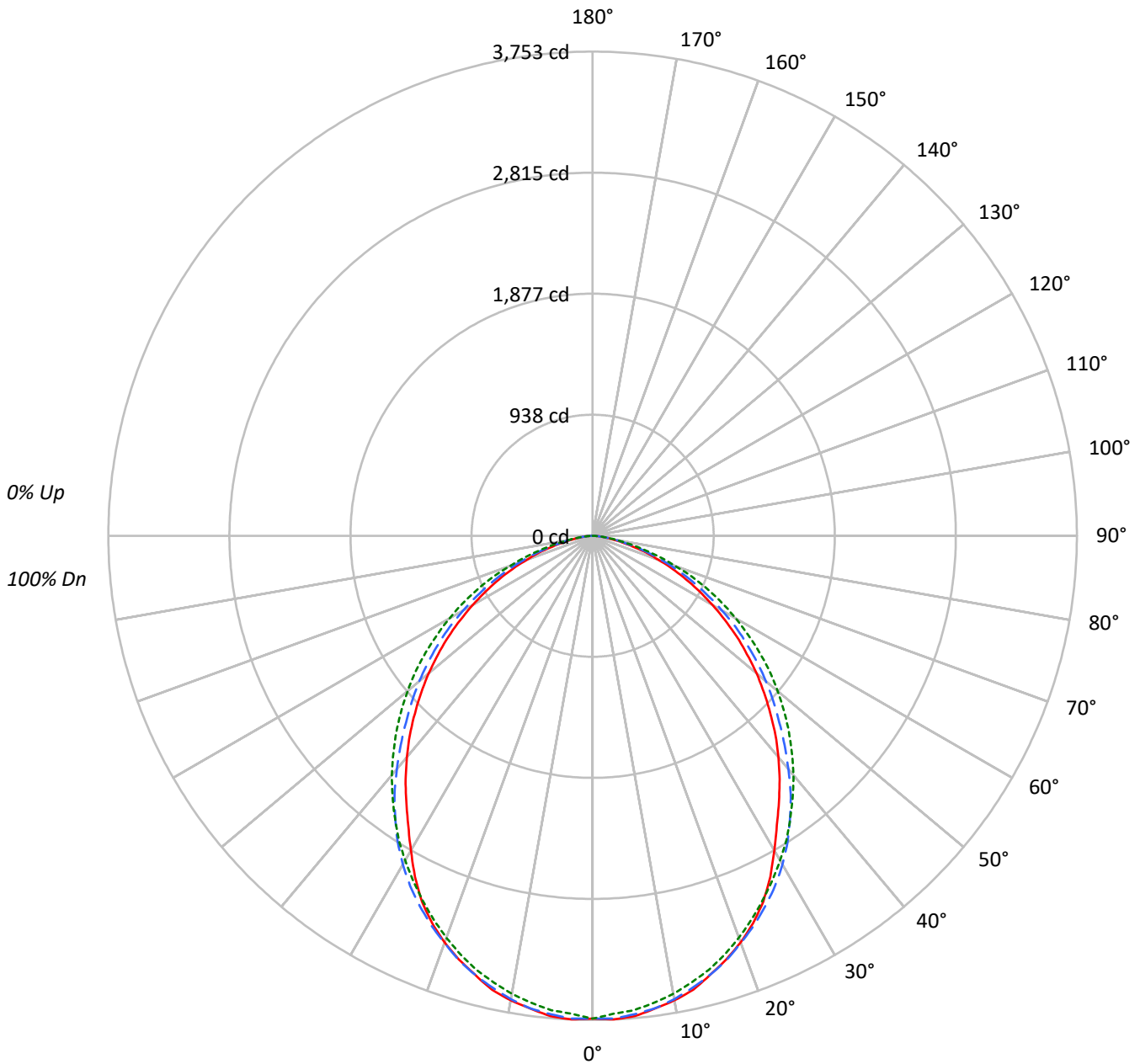
Lumens per Lamp: N/A
Luminaire Lumens: 8654.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	10071	10071	10071
5°	10098	10055	9970
10°	9991	9963	9850
15°	9814	9814	9702
20°	9606	9618	9495
25°	9290	9405	9255
30°	8748	9141	9029
35°	8266	8762	8776
40°	7864	8289	8506
45°	7414	7786	8186
50°	6940	7338	7837
55°	6402	6827	7414
60°	5765	6229	6895
65°	5090	5539	6271
70°	4242	4718	5328
75°	3333	3767	4171
80°	2383	2651	2941
85°	1553	1553	1463



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.4	4.1
10°-20°	989.9	11.4
20°-30°	1446.6	16.7
30°-40°	1642.1	19.0
40°-50°	1585.2	18.3
50°-60°	1307.7	15.1
60°-70°	870.8	10.1
70°-80°	389.7	4.5
80°-90°	69.7	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°	2788.9	32.2
0°-40°	4431.0	51.2
0°-60°	7323.8	84.6
0°-90°	8654.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8654.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3743	3743	3743	3743	3743	
5°	3738	3737	3722	3702	3691	354
15°	3523	3531	3523	3507	3482	993
25°	3129	3153	3168	3144	3117	1433
35°	2516	2551	2667	2682	2672	1577
45°	1948	1981	2046	2140	2151	1503
55°	1364	1388	1455	1536	1580	1218
65°	799	821	870	932	985	793
75°	321	338	362	380	401	351
85°	50	50	50	47	47	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3742.6	3742.6	3742.6	3742.6	3742.6
2.5°	3752.7	3754.1	3745.5	3722.5	3708.1
5°	3738.3	3736.9	3722.5	3702.4	3690.9
7.5°	3696.6	3699.5	3695.2	3666.4	3650.6
10°	3656.4	3657.8	3646.3	3623.3	3604.6
12.5°	3604.6	3603.2	3587.3	3575.8	3545.7
15°	3522.6	3531.3	3522.6	3506.8	3482.4
17.5°	3443.6	3443.6	3449.3	3422.0	3403.3
20°	3354.4	3358.7	3358.7	3337.2	3315.6
22.5°	3250.9	3263.8	3268.2	3245.1	3219.3
25°	3128.7	3153.1	3167.5	3144.5	3117.2
27.5°	2980.6	3018.0	3061.1	3043.9	3013.7
30°	2815.2	2869.9	2941.8	2927.4	2905.8
32.5°	2658.5	2713.2	2812.4	2806.6	2795.1
35°	2516.2	2550.7	2667.1	2681.5	2671.5
37.5°	2381.0	2412.7	2521.9	2555.0	2546.4
40°	2238.7	2273.2	2359.5	2418.4	2421.3
42.5°	2097.8	2130.8	2201.3	2286.1	2286.1
45°	1948.2	1981.3	2046.0	2139.5	2151.0
47.5°	1801.6	1836.1	1899.4	1992.8	2011.5
50°	1657.8	1689.4	1752.7	1843.3	1872.0
52.5°	1508.3	1542.8	1604.6	1688.0	1729.7
55°	1364.5	1387.5	1455.1	1535.6	1580.2
57.5°	1215.0	1236.5	1312.7	1381.7	1427.7
60°	1071.2	1098.5	1157.4	1227.9	1281.1
62.5°	933.1	961.9	1012.2	1074.0	1134.4
65°	799.4	821.0	869.9	931.7	984.9
67.5°	670.0	688.7	737.6	780.7	836.8
70°	539.2	563.6	599.6	641.3	677.2
72.5°	434.2	444.3	474.5	504.7	542.1
75°	320.6	337.9	362.3	379.6	401.2
77.5°	230.1	240.1	254.5	268.9	289.0
80°	153.8	158.2	171.1	174.0	189.8
82.5°	93.5	96.3	99.2	100.6	106.4
85°	50.3	50.3	50.3	47.4	47.4
87.5°	28.8	28.8	24.4	20.1	14.4
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)