

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: P556930

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-85-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: P556930
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-30-UNV-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

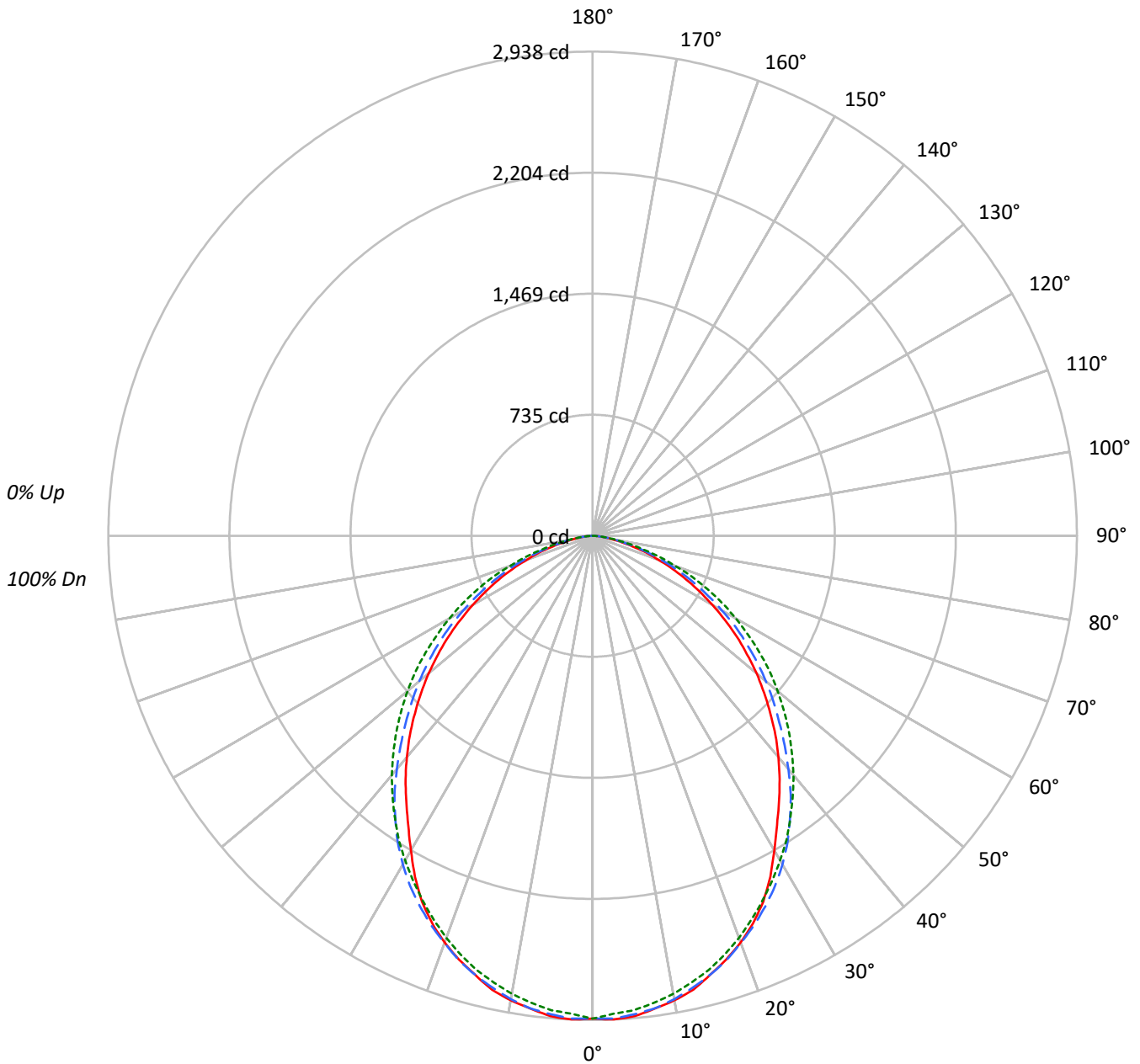
Lumens per Lamp: N/A
Luminaire Lumens: 6775.0 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (Ain): 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				20				
RC	80				70				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			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°	7885	7885	7885
5°	7906	7872	7805
10°	7822	7800	7711
15°	7683	7683	7595
20°	7520	7530	7433
25°	7273	7363	7246
30°	6848	7156	7069
35°	6471	6859	6870
40°	6157	6489	6659
45°	5804	6096	6408
50°	5434	5744	6136
55°	5012	5344	5804
60°	4513	4877	5398
65°	3985	4336	4910
70°	3321	3693	4172
75°	2610	2950	3266
80°	1866	2075	2303
85°	1216	1216	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.9	4.1
10°-20°	775.0	11.4
20°-30°	1132.5	16.7
30°-40°	1285.5	19.0
40°-50°	1241.0	18.3
50°-60°	1023.7	15.1
60°-70°	681.7	10.1
70°-80°	305.1	4.5
80°-90°	54.6	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°	2183.4	32.2
0°-40°	3468.9	51.2
0°-60°	5733.6	84.6
0°-90°	6775.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6775.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2930	2930	2930	2930	2930	
5°	2927	2926	2914	2898	2890	277
15°	2758	2764	2758	2745	2726	777
25°	2449	2468	2480	2462	2440	1122
35°	1970	1997	2088	2099	2091	1234
45°	1525	1551	1602	1675	1684	1177
55°	1068	1086	1139	1202	1237	953
65°	626	643	681	729	771	621
75°	251	264	284	297	314	274
85°	39	39	39	37	37	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2930.0	2930.0	2930.0	2930.0	2930.0
2.5°	2937.9	2939.0	2932.3	2914.3	2903.0
5°	2926.6	2925.5	2914.3	2898.5	2889.5
7.5°	2894.0	2896.2	2892.9	2870.4	2858.0
10°	2862.5	2863.6	2854.6	2836.6	2822.0
12.5°	2822.0	2820.8	2808.4	2799.4	2775.8
15°	2757.8	2764.5	2757.8	2745.4	2726.3
17.5°	2695.9	2695.9	2700.4	2679.0	2664.4
20°	2626.1	2629.5	2629.5	2612.6	2595.7
22.5°	2545.0	2555.2	2558.6	2540.5	2520.3
25°	2449.4	2468.5	2479.8	2461.8	2440.4
27.5°	2333.4	2362.7	2396.5	2383.0	2359.3
30°	2204.0	2246.8	2303.0	2291.8	2274.9
32.5°	2081.3	2124.1	2201.7	2197.2	2188.2
35°	1969.9	1996.9	2088.0	2099.3	2091.4
37.5°	1864.0	1888.8	1974.4	2000.2	1993.5
40°	1752.6	1779.6	1847.2	1893.3	1895.6
42.5°	1642.3	1668.2	1723.3	1789.8	1789.8
45°	1525.2	1551.1	1601.8	1674.9	1683.9
47.5°	1410.4	1437.4	1487.0	1560.1	1574.8
50°	1297.9	1322.6	1372.1	1443.1	1465.6
52.5°	1180.8	1207.8	1256.2	1321.5	1354.1
55°	1068.2	1086.2	1139.1	1202.2	1237.1
57.5°	951.2	968.0	1027.7	1081.7	1117.7
60°	838.6	860.0	906.1	961.3	1002.9
62.5°	730.5	753.0	792.4	840.8	888.1
65°	625.8	642.7	681.0	729.4	771.1
67.5°	524.5	539.2	577.4	611.2	655.1
70°	422.1	441.2	469.4	502.0	530.2
72.5°	339.9	347.8	371.5	395.1	424.4
75°	251.0	264.5	283.7	297.2	314.1
77.5°	180.1	188.0	199.2	210.5	226.3
80°	120.4	123.8	133.9	136.2	148.6
82.5°	73.2	75.4	77.7	78.8	83.3
85°	39.4	39.4	39.4	37.1	37.1
87.5°	22.5	22.5	19.1	15.8	11.3
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)