

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: P557541

Luminaire Tested: **FUSL-12-4-LD4-2STD-35-UNV-93-86-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: P557541
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-LD4-2STD-35-UNV-93-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

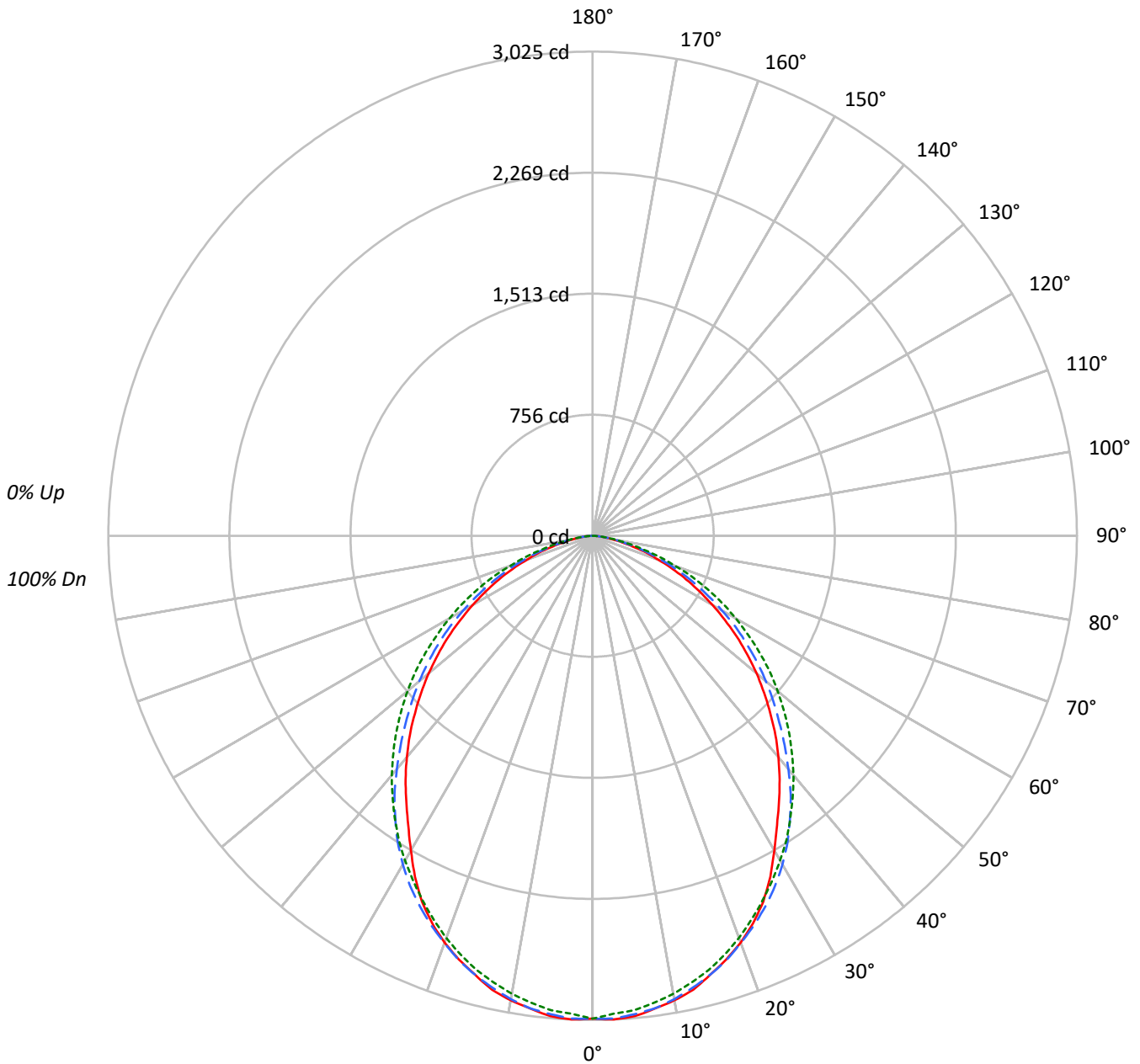
Lumens per Lamp: N/A
Luminaire Lumens: 6976.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
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°	8118	8118	8118
5°	8140	8106	8037
10°	8054	8032	7940
15°	7911	7911	7821
20°	7743	7753	7654
25°	7488	7581	7461
30°	7052	7369	7278
35°	6663	7063	7074
40°	6339	6681	6856
45°	5977	6277	6599
50°	5595	5915	6317
55°	5160	5503	5976
60°	4647	5021	5558
65°	4103	4465	5055
70°	3419	3803	4295
75°	2688	3037	3362
80°	1922	2137	2371
85°	1254	1254	1179



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	284.1	4.1
10°-20°	798.0	11.4
20°-30°	1166.1	16.7
30°-40°	1323.7	19.0
40°-50°	1277.8	18.3
50°-60°	1054.1	15.1
60°-70°	702.0	10.1
70°-80°	314.1	4.5
80°-90°	56.2	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°	2248.2	32.2
0°-40°	3571.9	51.2
0°-60°	5903.8	84.6
0°-90°	6976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3017	3017	3017	3017	3017	
5°	3014	3012	3001	2984	2975	285
15°	2840	2847	2840	2827	2807	801
25°	2522	2542	2553	2535	2513	1155
35°	2028	2056	2150	2162	2154	1271
45°	1570	1597	1649	1725	1734	1212
55°	1100	1118	1173	1238	1274	982
65°	644	662	701	751	794	639
75°	258	272	292	306	323	283
85°	41	41	41	38	38	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3016.9	3016.9	3016.9	3016.9	3016.9
2.5°	3025.1	3026.2	3019.3	3000.7	2989.1
5°	3013.5	3012.3	3000.7	2984.5	2975.2
7.5°	2979.9	2982.2	2978.7	2955.5	2942.8
10°	2947.4	2948.6	2939.3	2920.7	2905.7
12.5°	2905.7	2904.5	2891.8	2882.5	2858.2
15°	2839.6	2846.6	2839.6	2826.9	2807.2
17.5°	2775.9	2775.9	2780.5	2758.5	2743.4
20°	2704.0	2707.5	2707.5	2690.1	2672.7
22.5°	2620.6	2631.0	2634.5	2615.9	2595.1
25°	2522.0	2541.7	2553.3	2534.8	2512.8
27.5°	2402.7	2432.8	2467.6	2453.7	2429.3
30°	2269.4	2313.4	2371.4	2359.8	2342.4
32.5°	2143.0	2187.1	2267.1	2262.4	2253.1
35°	2028.3	2056.1	2150.0	2161.6	2153.5
37.5°	1919.3	1944.8	2032.9	2059.6	2052.6
40°	1804.6	1832.4	1902.0	1949.5	1951.8
42.5°	1691.0	1717.7	1774.5	1842.8	1842.8
45°	1570.5	1597.1	1649.3	1724.6	1733.9
47.5°	1452.3	1480.1	1531.1	1606.4	1621.5
50°	1336.4	1361.9	1412.9	1485.9	1509.0
52.5°	1215.8	1243.6	1293.5	1360.7	1394.3
55°	1099.9	1118.5	1172.9	1237.8	1273.8
57.5°	979.4	996.8	1058.2	1113.8	1150.9
60°	863.5	885.5	933.0	989.8	1032.7
62.5°	752.2	775.4	816.0	865.8	914.5
65°	644.4	661.8	701.2	751.0	793.9
67.5°	540.1	555.2	594.6	629.4	674.6
70°	434.6	454.3	483.3	516.9	545.9
72.5°	350.0	358.1	382.5	406.8	437.0
75°	258.5	272.4	292.1	306.0	323.4
77.5°	185.4	193.6	205.1	216.7	233.0
80°	124.0	127.5	137.9	140.2	153.0
82.5°	75.3	77.7	80.0	81.1	85.8
85°	40.6	40.6	40.6	38.2	38.2
87.5°	23.2	23.2	19.7	16.2	11.6
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)