

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: P557984

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-84-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: P557984
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-LD4-3LO-30-UNV-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

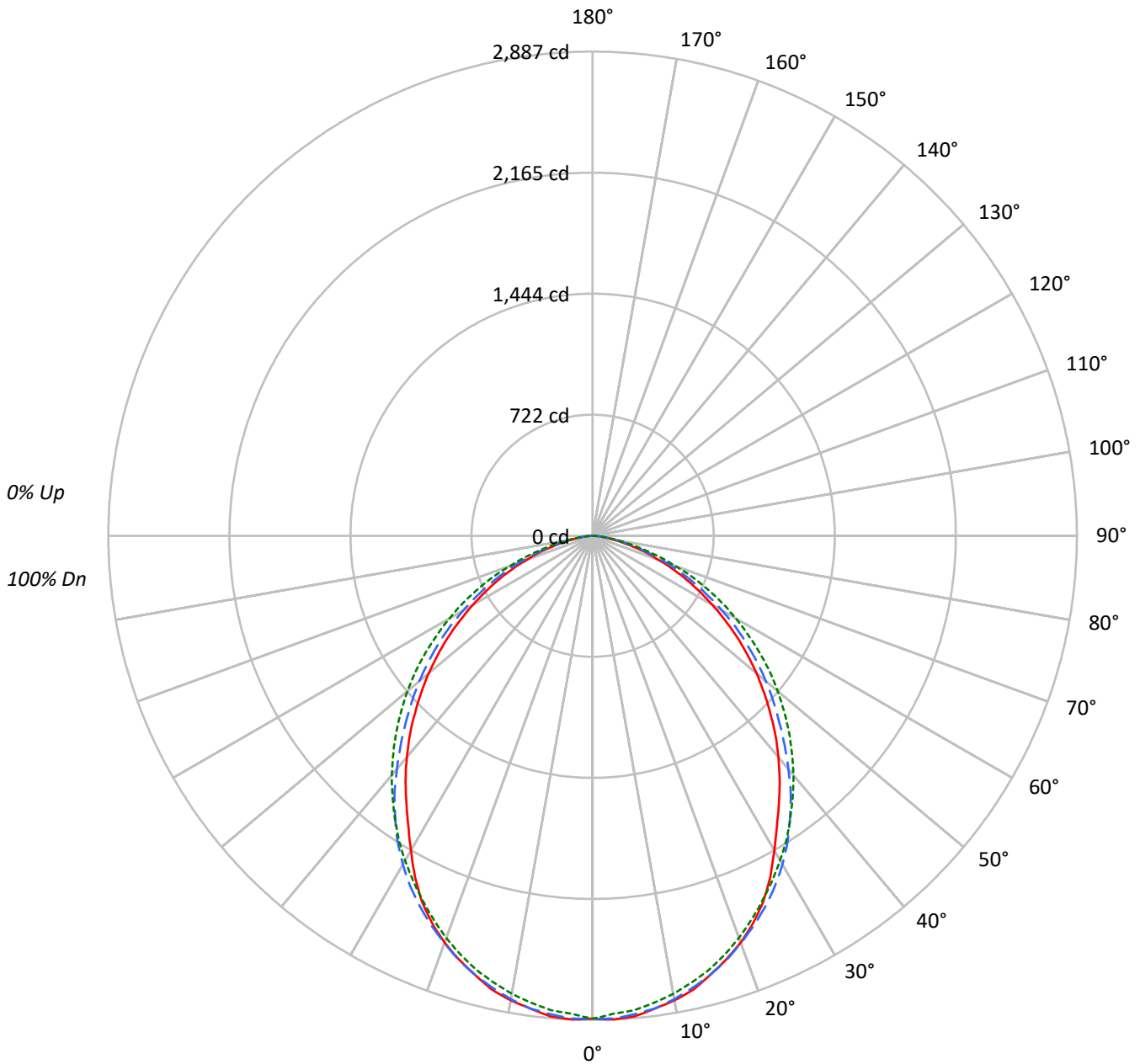
Lumens per Lamp: N/A
Luminaire Lumens: 6658.0 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 70.2
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°	7748	7748	7748
5°	7769	7736	7670
10°	7686	7665	7578
15°	7550	7550	7464
20°	7390	7400	7305
25°	7147	7236	7121
30°	6730	7033	6947
35°	6359	6741	6752
40°	6050	6377	6544
45°	5704	5990	6298
50°	5339	5645	6030
55°	4925	5252	5704
60°	4435	4793	5304
65°	3916	4261	4825
70°	3264	3629	4099
75°	2565	2899	3209
80°	1835	2039	2263
85°	1195	1195	1127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	271.1	4.1
10°-20°	761.6	11.4
20°-30°	1113.0	16.7
30°-40°	1263.3	19.0
40°-50°	1219.6	18.3
50°-60°	1006.0	15.1
60°-70°	669.9	10.1
70°-80°	299.8	4.5
80°-90°	53.6	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°	2145.7	32.2
0°-40°	3409.0	51.2
0°-60°	5634.6	84.6
0°-90°	6658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6658.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2879	2879	2879	2879	2879	
5°	2876	2875	2864	2848	2840	272
15°	2710	2717	2710	2698	2679	764
25°	2407	2426	2437	2419	2398	1102
35°	1936	1962	2052	2063	2055	1213
45°	1499	1524	1574	1646	1655	1156
55°	1050	1068	1120	1181	1216	937
65°	615	632	669	717	758	610
75°	247	260	279	292	309	270
85°	39	39	39	36	36	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2879.4	2879.4	2879.4	2879.4	2879.4
2.5°	2887.2	2888.3	2881.6	2863.9	2852.9
5°	2876.1	2875.0	2863.9	2848.4	2839.6
7.5°	2844.0	2846.2	2842.9	2820.8	2808.6
10°	2813.0	2814.1	2805.3	2787.6	2773.2
12.5°	2773.2	2772.1	2759.9	2751.1	2727.9
15°	2710.2	2716.8	2710.2	2698.0	2679.2
17.5°	2649.3	2649.3	2653.8	2632.7	2618.4
20°	2580.7	2584.1	2584.1	2567.5	2550.9
22.5°	2501.1	2511.1	2514.4	2496.7	2476.8
25°	2407.1	2425.9	2436.9	2419.2	2398.2
27.5°	2293.1	2321.9	2355.1	2341.8	2318.6
30°	2165.9	2208.0	2263.3	2252.2	2235.6
32.5°	2045.3	2087.4	2163.7	2159.3	2150.4
35°	1935.8	1962.4	2052.0	2063.0	2055.3
37.5°	1831.9	1856.2	1940.3	1965.7	1959.1
40°	1722.3	1748.9	1815.3	1860.6	1862.8
42.5°	1613.9	1639.4	1693.6	1758.8	1758.8
45°	1498.9	1524.3	1574.1	1646.0	1654.9
47.5°	1386.1	1412.6	1461.3	1533.2	1547.6
50°	1275.4	1299.8	1348.4	1418.1	1440.3
52.5°	1160.4	1186.9	1234.5	1298.7	1330.7
55°	1049.8	1067.5	1119.5	1181.4	1215.7
57.5°	934.7	951.3	1010.0	1063.0	1098.4
60°	824.1	845.1	890.5	944.7	985.6
62.5°	717.9	740.0	778.8	826.3	872.8
65°	615.0	631.6	669.2	716.8	757.7
67.5°	515.5	529.9	567.5	600.7	643.8
70°	414.8	433.6	461.3	493.4	521.0
72.5°	334.1	341.8	365.0	388.3	417.0
75°	246.7	260.0	278.8	292.0	308.6
77.5°	177.0	184.7	195.8	206.9	222.3
80°	118.4	121.7	131.6	133.8	146.0
82.5°	71.9	74.1	76.3	77.4	81.9
85°	38.7	38.7	38.7	36.5	36.5
87.5°	22.1	22.1	18.8	15.5	11.1
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)