

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: P557986

Luminaire Tested: **FUSL-12-4-LD4-3LO-30-UNV-93-85-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: P557986
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-93-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

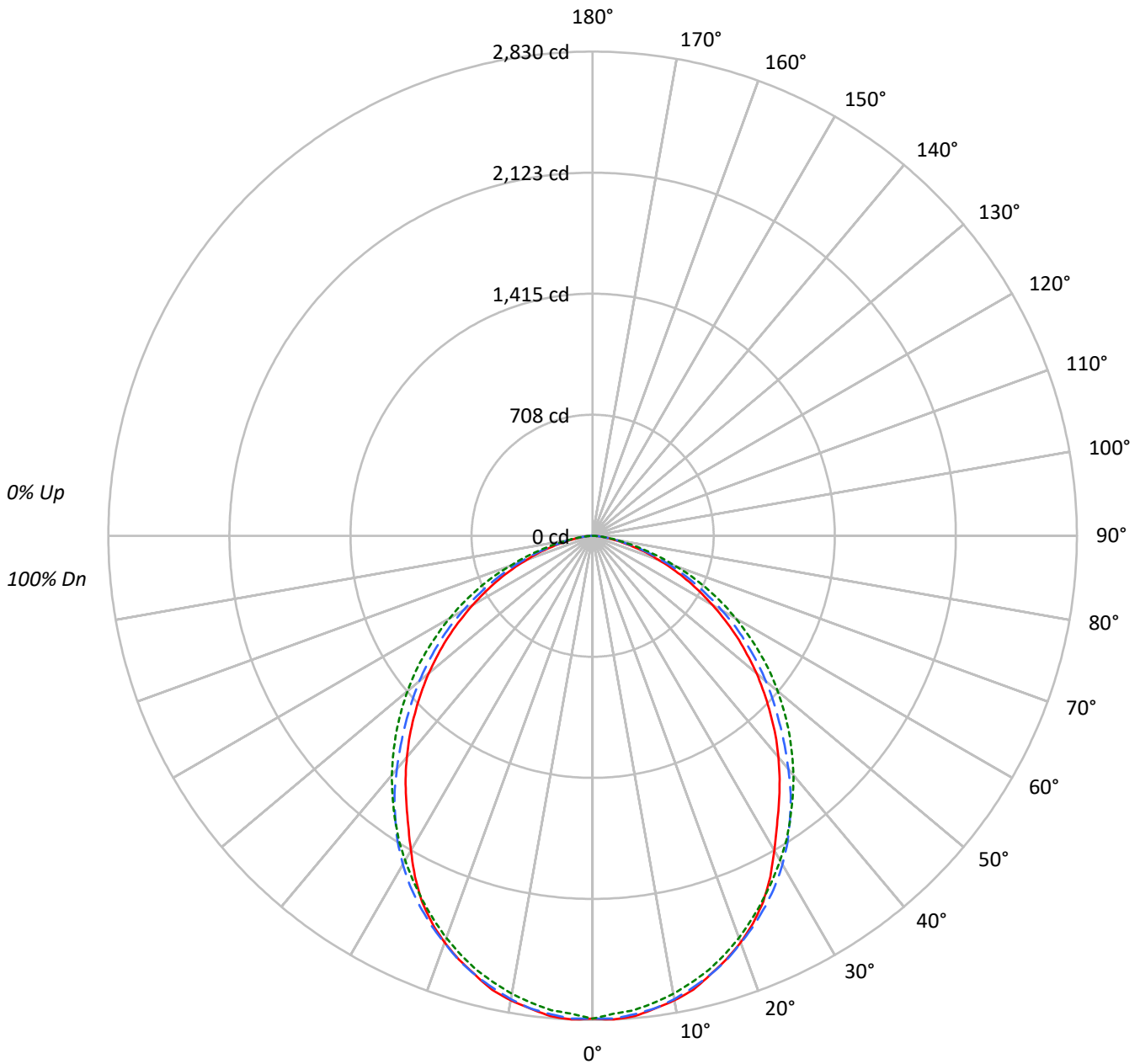
Lumens per Lamp: N/A
Luminaire Lumens: 6526.0 lumens
Efficiency: N/A
Efficacy: 93.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	7595	7595	7595
5°	7615	7583	7518
10°	7534	7514	7427
15°	7400	7400	7316
20°	7244	7253	7160
25°	7005	7092	6980
30°	6597	6893	6809
35°	6233	6607	6618
40°	5930	6250	6414
45°	5591	5872	6173
50°	5234	5533	5910
55°	4828	5148	5590
60°	4348	4697	5200
65°	3838	4177	4729
70°	3199	3557	4018
75°	2514	2840	3145
80°	1798	1999	2218
85°	1170	1170	1105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.7	4.1
10°-20°	746.5	11.4
20°-30°	1090.9	16.7
30°-40°	1238.3	19.0
40°-50°	1195.4	18.3
50°-60°	986.1	15.1
60°-70°	656.7	10.1
70°-80°	293.8	4.5
80°-90°	52.6	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°	2103.1	32.2
0°-40°	3341.4	51.2
0°-60°	5522.9	84.6
0°-90°	6526.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6526.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2822	2822	2822	2822	2822	
5°	2819	2818	2807	2792	2783	267
15°	2656	2663	2656	2644	2626	749
25°	2359	2378	2389	2371	2351	1080
35°	1898	1924	2011	2022	2015	1189
45°	1469	1494	1543	1613	1622	1134
55°	1029	1046	1097	1158	1192	918
65°	603	619	656	703	743	598
75°	242	255	273	286	302	264
85°	38	38	38	36	36	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2822.3	2822.3	2822.3	2822.3	2822.3
2.5°	2829.9	2831.0	2824.5	2807.1	2796.3
5°	2819.1	2818.0	2807.1	2792.0	2783.3
7.5°	2787.6	2789.8	2786.5	2764.9	2752.9
10°	2757.3	2758.4	2749.7	2732.3	2718.2
12.5°	2718.2	2717.2	2705.2	2696.6	2673.8
15°	2656.4	2662.9	2656.4	2644.5	2626.1
17.5°	2596.8	2596.8	2601.1	2580.5	2566.4
20°	2529.6	2532.8	2532.8	2516.6	2500.3
22.5°	2451.5	2461.3	2464.5	2447.2	2427.7
25°	2359.3	2377.8	2388.6	2371.3	2350.7
27.5°	2247.7	2275.9	2308.4	2295.4	2272.6
30°	2123.0	2164.2	2218.4	2207.6	2191.3
32.5°	2004.8	2046.0	2120.8	2116.5	2107.8
35°	1897.5	1923.5	2011.3	2022.1	2014.6
37.5°	1795.5	1819.4	1901.8	1926.7	1920.2
40°	1688.2	1714.2	1779.3	1823.7	1825.9
42.5°	1581.9	1606.9	1660.0	1724.0	1724.0
45°	1469.2	1494.1	1542.9	1613.4	1622.1
47.5°	1358.6	1384.6	1432.3	1502.8	1516.9
50°	1250.2	1274.0	1321.7	1390.0	1411.7
52.5°	1137.4	1163.4	1210.0	1272.9	1304.4
55°	1029.0	1046.3	1097.3	1158.0	1191.6
57.5°	916.2	932.5	989.9	1042.0	1076.7
60°	807.8	828.4	872.8	926.0	966.1
62.5°	703.7	725.4	763.3	809.9	855.5
65°	602.8	619.1	656.0	702.6	742.7
67.5°	505.3	519.4	556.2	588.8	631.0
70°	406.6	425.0	452.1	483.6	510.7
72.5°	327.4	335.0	357.8	380.6	408.8
75°	241.8	254.8	273.2	286.2	302.5
77.5°	173.5	181.1	191.9	202.8	217.9
80°	116.0	119.3	129.0	131.2	143.1
82.5°	70.5	72.6	74.8	75.9	80.2
85°	37.9	37.9	37.9	35.8	35.8
87.5°	21.7	21.7	18.4	15.2	10.8
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)