

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: P557646

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-81-97-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: P557646
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-50-UNV-81-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

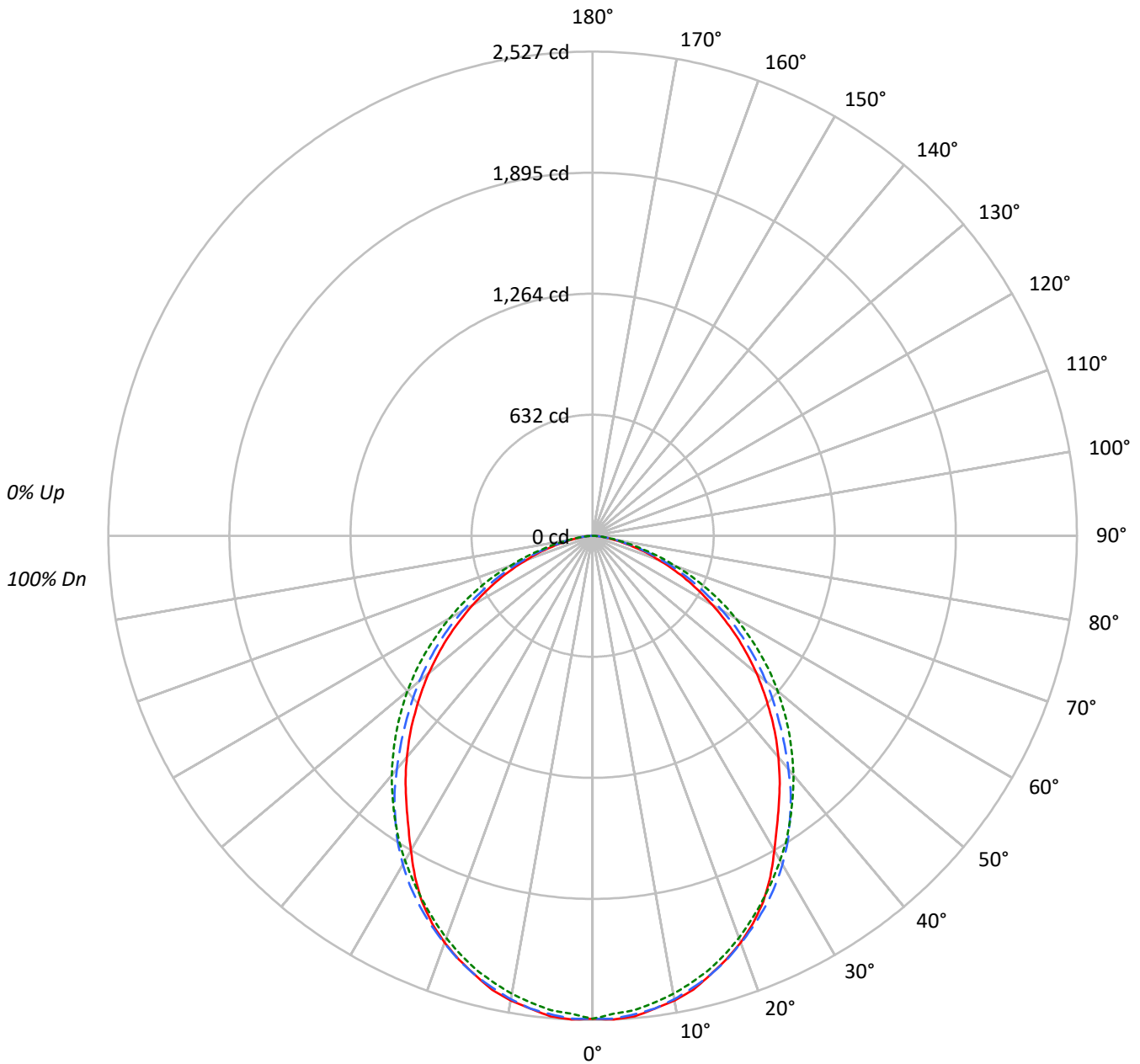
Lumens per Lamp: N/A
Luminaire Lumens: 5828.0 lumens
Efficiency: N/A
Efficacy: 87.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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									
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°	6783	6783	6783
5°	6801	6772	6714
10°	6728	6710	6633
15°	6609	6609	6534
20°	6469	6477	6394
25°	6256	6334	6233
30°	5891	6156	6081
35°	5567	5901	5910
40°	5296	5582	5728
45°	4993	5244	5513
50°	4674	4941	5278
55°	4311	4597	4993
60°	3883	4195	4643
65°	3428	3730	4223
70°	2857	3177	3589
75°	2245	2537	2809
80°	1605	1785	1980
85°	1047	1047	988



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.3	4.1
10°-20°	666.7	11.4
20°-30°	974.2	16.7
30°-40°	1105.9	19.0
40°-50°	1067.5	18.3
50°-60°	880.6	15.1
60°-70°	586.4	10.1
70°-80°	262.4	4.5
80°-90°	47.0	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°	1878.2	32.2
0°-40°	2984.0	51.2
0°-60°	4932.2	84.6
0°-90°	5828.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5828.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2520	2520	2520	2520	2520	
5°	2518	2517	2507	2493	2486	238
15°	2372	2378	2372	2362	2345	669
25°	2107	2124	2133	2118	2099	965
35°	1694	1718	1796	1806	1799	1062
45°	1312	1334	1378	1441	1449	1012
55°	919	934	980	1034	1064	820
65°	538	553	586	628	663	534
75°	216	228	244	256	270	236
85°	34	34	34	32	32	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2520.5	2520.5	2520.5	2520.5	2520.5
2.5°	2527.2	2528.2	2522.4	2506.9	2497.2
5°	2517.6	2516.6	2506.9	2493.3	2485.6
7.5°	2489.5	2491.4	2488.5	2469.1	2458.5
10°	2462.4	2463.3	2455.6	2440.1	2427.5
12.5°	2427.5	2426.5	2415.9	2408.1	2387.8
15°	2372.3	2378.1	2372.3	2361.7	2345.2
17.5°	2319.1	2319.1	2322.9	2304.5	2291.9
20°	2259.0	2261.9	2261.9	2247.4	2232.9
22.5°	2189.3	2198.0	2200.9	2185.4	2168.0
25°	2107.0	2123.5	2133.1	2117.7	2099.3
27.5°	2007.3	2032.4	2061.5	2049.9	2029.5
30°	1895.9	1932.7	1981.1	1971.4	1956.9
32.5°	1790.4	1827.2	1894.0	1890.1	1882.4
35°	1694.5	1717.7	1796.2	1805.9	1799.1
37.5°	1603.5	1624.8	1698.4	1720.7	1714.8
40°	1507.6	1530.9	1589.0	1628.7	1630.6
42.5°	1412.7	1435.0	1482.5	1539.6	1539.6
45°	1312.0	1334.3	1377.9	1440.8	1448.6
47.5°	1213.3	1236.5	1279.1	1342.1	1354.6
50°	1116.4	1137.7	1180.3	1241.3	1260.7
52.5°	1015.7	1039.0	1080.6	1136.8	1164.9
55°	918.9	934.4	979.9	1034.1	1064.2
57.5°	818.2	832.7	884.0	930.5	961.5
60°	721.4	739.8	779.5	826.9	862.7
62.5°	628.4	647.8	681.7	723.3	764.0
65°	538.4	552.9	585.8	627.5	663.3
67.5°	451.2	463.8	496.7	525.8	563.5
70°	363.1	379.6	403.8	431.9	456.1
72.5°	292.4	299.2	319.5	339.9	365.0
75°	215.9	227.5	244.0	255.6	270.2
77.5°	154.9	161.7	171.4	181.1	194.6
80°	103.6	106.5	115.2	117.2	127.8
82.5°	62.9	64.9	66.8	67.8	71.7
85°	33.9	33.9	33.9	32.0	32.0
87.5°	19.4	19.4	16.5	13.6	9.7
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)