

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: P557678

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-93-97-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: P557678
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-93-97-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

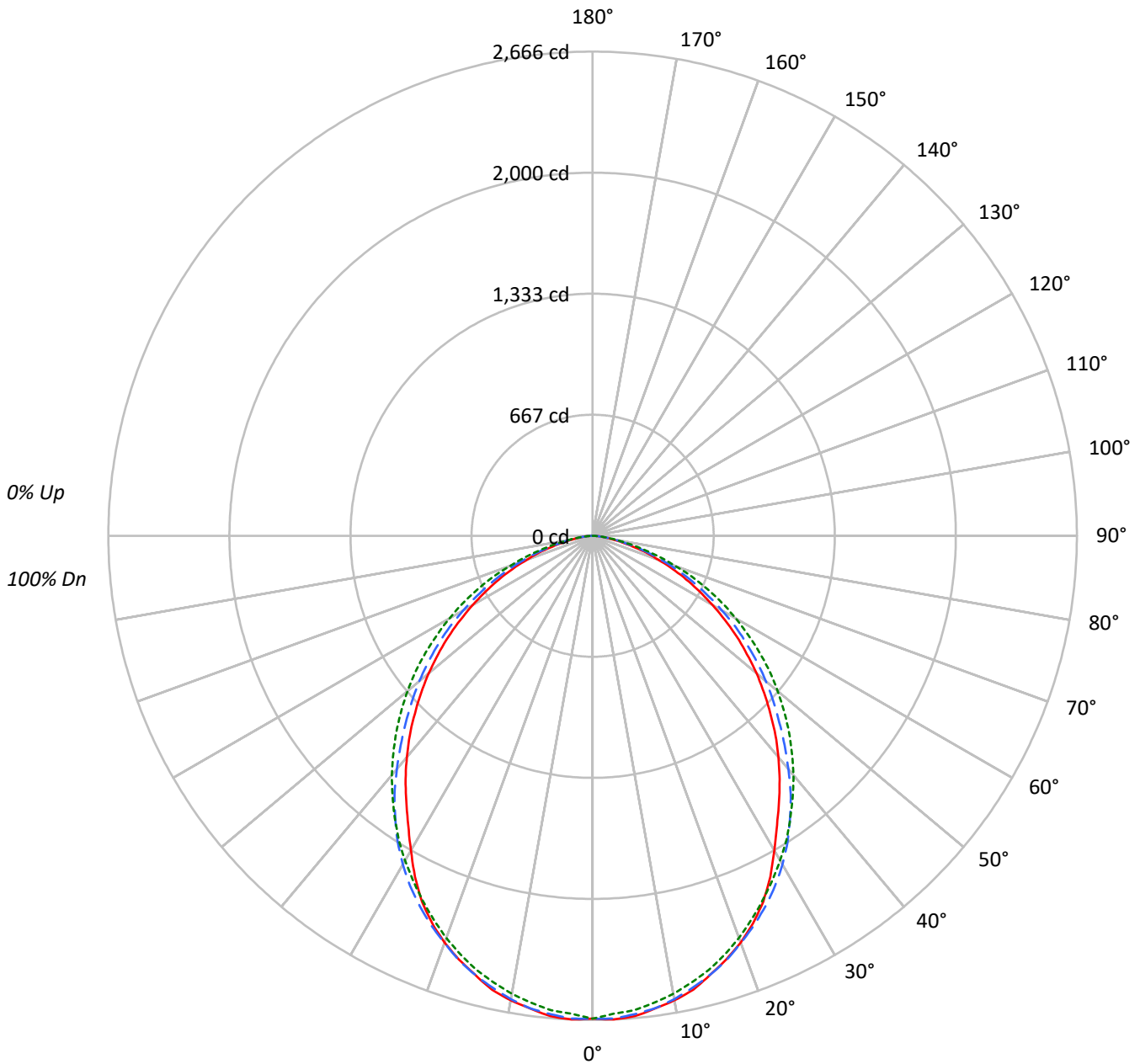
Lumens per Lamp: N/A
Luminaire Lumens: 6148.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	7155	7155	7155
5°	7174	7144	7083
10°	7098	7078	6997
15°	6972	6972	6892
20°	6824	6833	6745
25°	6600	6682	6575
30°	6215	6494	6415
35°	5872	6225	6235
40°	5587	5888	6042
45°	5267	5531	5815
50°	4930	5213	5568
55°	4548	4850	5267
60°	4096	4426	4898
65°	3616	3935	4455
70°	3013	3351	3785
75°	2368	2676	2963
80°	1694	1884	2089
85°	1105	1105	1041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.3	4.1
10°-20°	703.3	11.4
20°-30°	1027.7	16.7
30°-40°	1166.6	19.0
40°-50°	1126.1	18.3
50°-60°	929.0	15.1
60°-70°	618.6	10.1
70°-80°	276.8	4.5
80°-90°	49.5	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°	1981.3	32.2
0°-40°	3147.9	51.2
0°-60°	5203.0	84.6
0°-90°	6148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2659	2659	2659	2659	2659	
5°	2656	2655	2645	2630	2622	251
15°	2503	2509	2503	2491	2474	705
25°	2223	2240	2250	2234	2214	1018
35°	1788	1812	1895	1905	1898	1120
45°	1384	1408	1454	1520	1528	1068
55°	969	986	1034	1091	1123	865
65°	568	583	618	662	700	563
75°	228	240	257	270	285	249
85°	36	36	36	34	34	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2658.9	2658.9	2658.9	2658.9	2658.9
2.5°	2666.0	2667.0	2660.9	2644.6	2634.3
5°	2655.8	2654.8	2644.6	2630.3	2622.1
7.5°	2626.2	2628.2	2625.1	2604.7	2593.5
10°	2597.6	2598.6	2590.4	2574.1	2560.8
12.5°	2560.8	2559.8	2548.5	2540.4	2518.9
15°	2502.6	2508.7	2502.6	2491.3	2474.0
17.5°	2446.4	2446.4	2450.5	2431.1	2417.8
20°	2383.1	2386.1	2386.1	2370.8	2355.5
22.5°	2309.5	2318.7	2321.8	2305.4	2287.0
25°	2222.7	2240.1	2250.3	2233.9	2214.5
27.5°	2117.5	2144.0	2174.7	2162.4	2141.0
30°	2000.0	2038.8	2089.9	2079.7	2064.4
32.5°	1888.7	1927.5	1998.0	1993.9	1985.7
35°	1787.5	1812.1	1894.8	1905.0	1897.9
37.5°	1691.5	1714.0	1791.6	1815.1	1809.0
40°	1590.4	1614.9	1676.2	1718.1	1720.1
42.5°	1490.3	1513.8	1563.8	1624.1	1624.1
45°	1384.1	1407.6	1453.5	1519.9	1528.1
47.5°	1279.9	1304.4	1349.3	1415.7	1429.0
50°	1177.7	1200.2	1245.2	1309.5	1329.9
52.5°	1071.5	1096.0	1139.9	1199.2	1228.8
55°	969.4	985.7	1033.7	1090.9	1122.6
57.5°	863.1	878.5	932.6	981.6	1014.3
60°	761.0	780.4	822.3	872.3	910.1
62.5°	662.9	683.4	719.1	763.0	805.9
65°	567.9	583.3	618.0	661.9	699.7
67.5°	476.0	489.3	524.0	554.7	594.5
70°	383.0	400.4	425.9	455.6	481.1
72.5°	308.5	315.6	337.1	358.5	385.1
75°	227.8	240.0	257.4	269.7	285.0
77.5°	163.4	170.6	180.8	191.0	205.3
80°	109.3	112.4	121.6	123.6	134.8
82.5°	66.4	68.4	70.5	71.5	75.6
85°	35.8	35.8	35.8	33.7	33.7
87.5°	20.4	20.4	17.4	14.3	10.2
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)