

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: P557634

Luminaire Tested: **FUSL-12-4-LD4-2STD-50-UNV-81-85-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: P557634
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-81-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187
CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

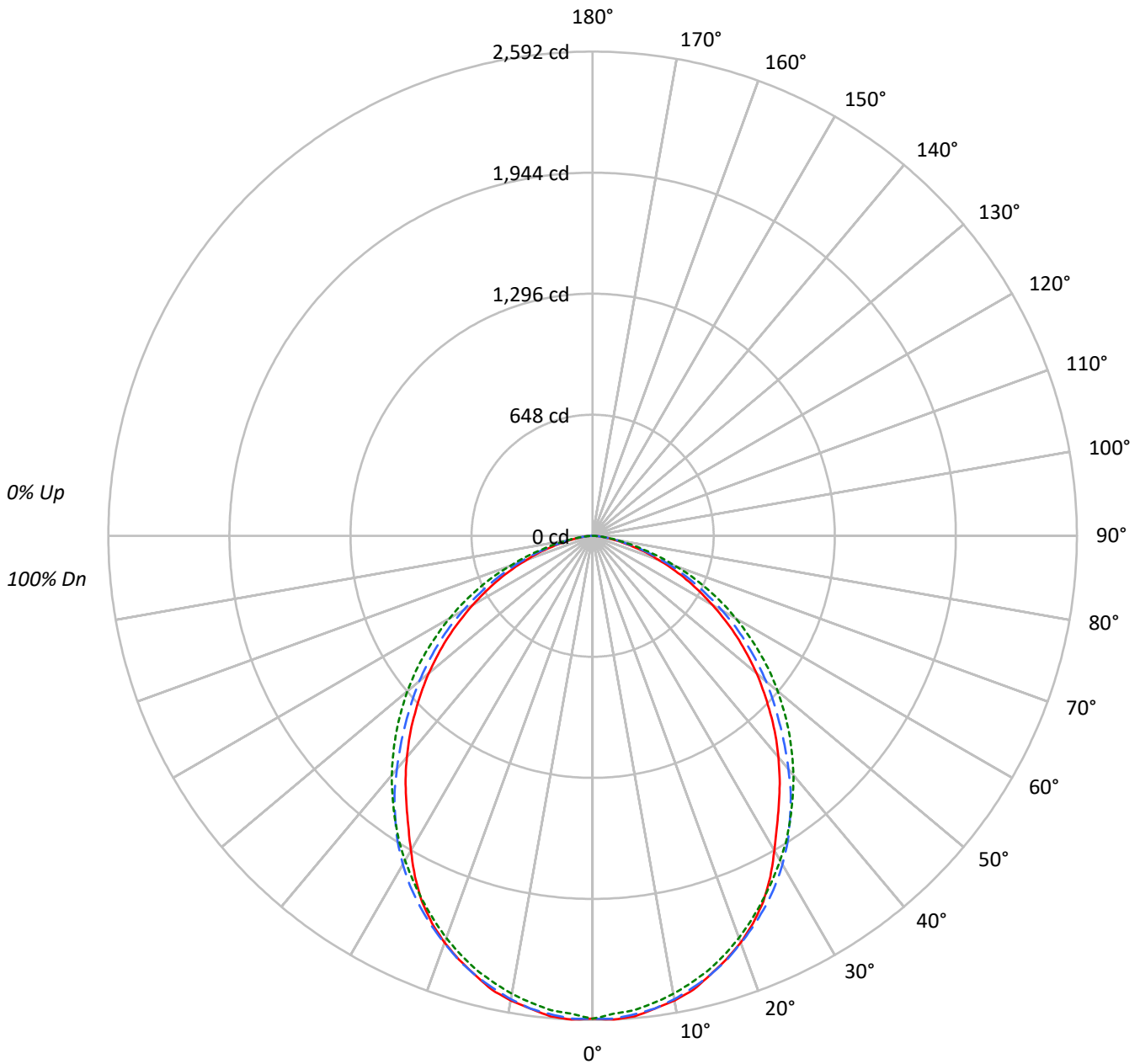
Lumens per Lamp: N/A
Luminaire Lumens: 5978.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	6957	6957	6957
5°	6976	6946	6887
10°	6901	6883	6804
15°	6779	6779	6702
20°	6636	6644	6559
25°	6417	6497	6394
30°	6043	6314	6237
35°	5710	6052	6062
40°	5432	5726	5876
45°	5122	5378	5654
50°	4794	5068	5414
55°	4422	4716	5121
60°	3982	4303	4763
65°	3516	3826	4332
70°	2931	3259	3681
75°	2303	2602	2881
80°	1647	1832	2032
85°	1074	1074	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	4.1
10°-20°	683.8	11.4
20°-30°	999.3	16.7
30°-40°	1134.3	19.0
40°-50°	1095.0	18.3
50°-60°	903.3	15.1
60°-70°	601.5	10.1
70°-80°	269.2	4.5
80°-90°	48.2	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°	1926.5	32.2
0°-40°	3060.8	51.2
0°-60°	5059.1	84.6
0°-90°	5978.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5978.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2585	2585	2585	2585	2585	
5°	2582	2581	2571	2558	2550	244
15°	2433	2439	2433	2422	2406	686
25°	2161	2178	2188	2172	2153	990
35°	1738	1762	1842	1852	1845	1089
45°	1346	1369	1413	1478	1486	1038
55°	943	958	1005	1061	1092	841
65°	552	567	601	644	680	548
75°	222	233	250	262	277	242
85°	35	35	35	33	33	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2585.3	2585.3	2585.3	2585.3	2585.3
2.5°	2592.3	2593.3	2587.3	2571.4	2561.5
5°	2582.4	2581.4	2571.4	2557.5	2549.6
7.5°	2553.5	2555.5	2552.6	2532.7	2521.8
10°	2525.7	2526.7	2518.8	2502.9	2490.0
12.5°	2490.0	2489.0	2478.1	2470.1	2449.3
15°	2433.4	2439.3	2433.4	2422.4	2405.6
17.5°	2378.7	2378.7	2382.7	2363.8	2350.9
20°	2317.2	2320.1	2320.1	2305.2	2290.3
22.5°	2245.7	2254.6	2257.6	2241.7	2223.8
25°	2161.2	2178.1	2188.0	2172.2	2153.3
27.5°	2058.9	2084.8	2114.5	2102.6	2081.8
30°	1944.7	1982.5	2032.1	2022.2	2007.3
32.5°	1836.4	1874.2	1942.7	1938.7	1930.8
35°	1738.1	1762.0	1842.4	1852.3	1845.4
37.5°	1644.8	1666.6	1742.1	1764.9	1759.0
40°	1546.4	1570.3	1629.9	1670.6	1672.6
42.5°	1449.1	1471.9	1520.6	1579.2	1579.2
45°	1345.8	1368.6	1413.3	1477.9	1485.8
47.5°	1244.5	1268.3	1312.0	1376.6	1389.5
50°	1145.2	1167.0	1210.7	1273.3	1293.2
52.5°	1041.9	1065.7	1108.4	1166.0	1194.8
55°	942.6	958.4	1005.1	1060.8	1091.5
57.5°	839.3	854.2	906.8	954.5	986.3
60°	739.9	758.8	799.5	848.2	885.0
62.5°	644.6	664.5	699.2	741.9	783.6
65°	552.2	567.1	600.9	643.6	680.4
67.5°	462.8	475.7	509.5	539.3	578.0
70°	372.5	389.3	414.2	443.0	467.8
72.5°	299.9	306.9	327.8	348.6	374.4
75°	221.5	233.4	250.3	262.2	277.1
77.5°	158.9	165.9	175.8	185.7	199.6
80°	106.3	109.3	118.2	120.2	131.1
82.5°	64.6	66.5	68.5	69.5	73.5
85°	34.8	34.8	34.8	32.8	32.8
87.5°	19.9	19.9	16.9	13.9	9.9
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)