

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: P557032

Luminaire Tested: **FUSL-12-4-LD4-2HI-35-UNV-93-88-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: P557032
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-LD4-2HI-35-UNV-93-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

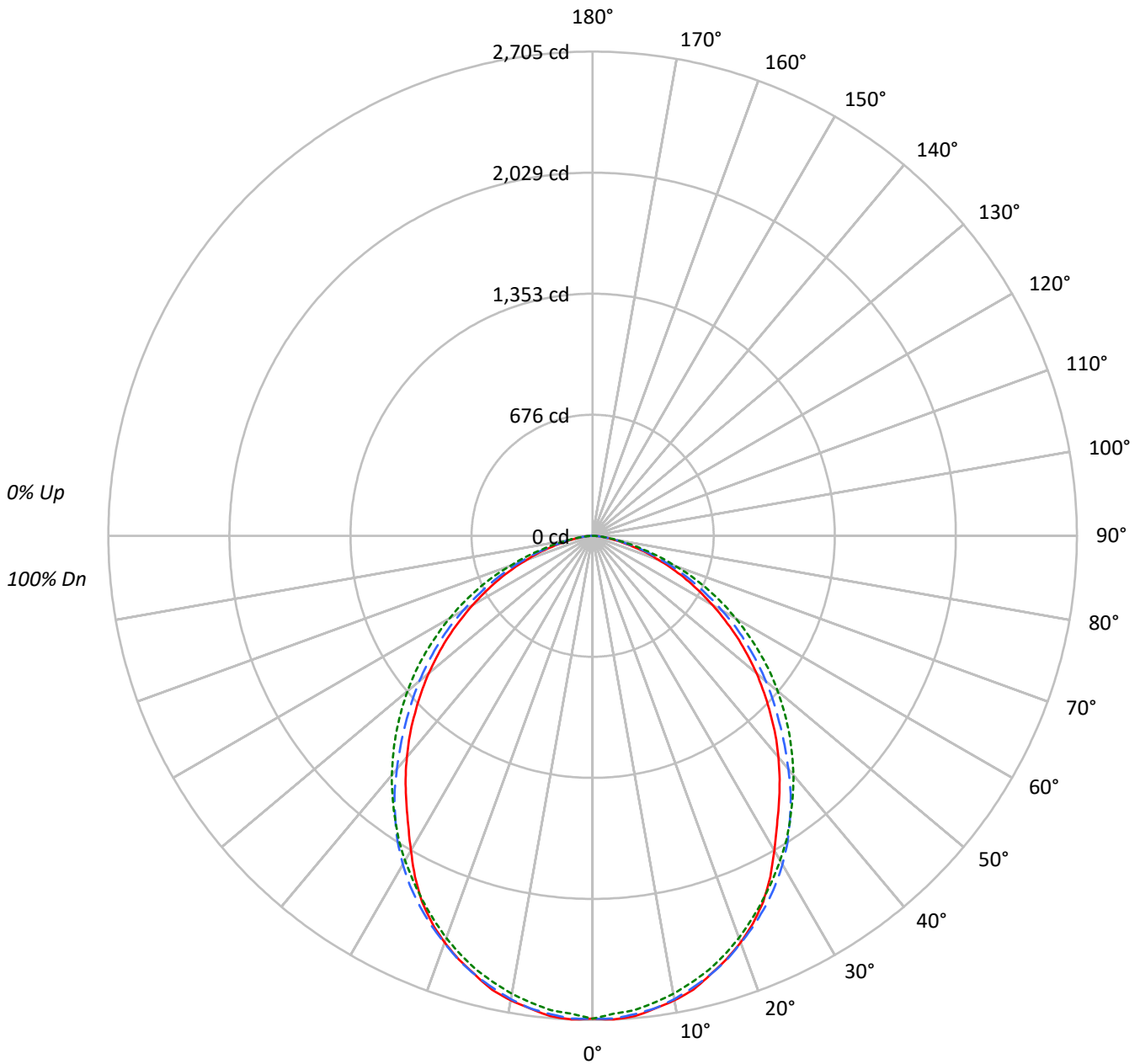
Lumens per Lamp: N/A
Luminaire Lumens: 6238.0 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	7260	7260	7260
5°	7279	7248	7187
10°	7202	7182	7100
15°	7074	7074	6993
20°	6924	6933	6844
25°	6696	6779	6671
30°	6306	6589	6508
35°	5958	6316	6326
40°	5669	5974	6131
45°	5344	5613	5901
50°	5003	5289	5649
55°	4615	4921	5344
60°	4155	4490	4970
65°	3669	3992	4520
70°	3058	3401	3840
75°	2403	2716	3007
80°	1719	1911	2120
85°	1121	1121	1056



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.0	4.1
10°-20°	713.6	11.4
20°-30°	1042.8	16.7
30°-40°	1183.6	19.0
40°-50°	1142.6	18.3
50°-60°	942.6	15.1
60°-70°	627.7	10.1
70°-80°	280.9	4.5
80°-90°	50.2	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°	2010.3	32.2
0°-40°	3194.0	51.2
0°-60°	5279.2	84.6
0°-90°	6238.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6238.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2698	2698	2698	2698	2698	
5°	2695	2694	2683	2669	2660	255
15°	2539	2545	2539	2528	2510	716
25°	2255	2273	2283	2267	2247	1033
35°	1814	1839	1922	1933	1926	1136
45°	1404	1428	1475	1542	1550	1084
55°	984	1000	1049	1107	1139	878
65°	576	592	627	672	710	571
75°	231	244	261	274	289	253
85°	36	36	36	34	34	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2697.8	2697.8	2697.8	2697.8	2697.8
2.5°	2705.0	2706.1	2699.8	2683.3	2672.9
5°	2694.7	2693.6	2683.3	2668.8	2660.5
7.5°	2664.6	2666.7	2663.6	2642.8	2631.4
10°	2635.6	2636.6	2628.3	2611.8	2598.3
12.5°	2598.3	2597.2	2585.8	2577.6	2555.8
15°	2539.2	2545.4	2539.2	2527.8	2510.2
17.5°	2482.2	2482.2	2486.3	2466.7	2453.2
20°	2417.9	2421.1	2421.1	2405.5	2390.0
22.5°	2343.3	2352.6	2355.8	2339.2	2320.5
25°	2255.2	2272.8	2283.2	2266.6	2246.9
27.5°	2148.5	2175.4	2206.5	2194.1	2172.3
30°	2029.3	2068.7	2120.5	2110.1	2094.6
32.5°	1916.3	1955.7	2027.2	2023.1	2014.8
35°	1813.7	1838.6	1922.5	1932.9	1925.6
37.5°	1716.3	1739.1	1817.9	1841.7	1835.5
40°	1613.7	1638.6	1700.7	1743.2	1745.3
42.5°	1512.1	1536.0	1586.7	1647.9	1647.9
45°	1404.3	1428.2	1474.8	1542.2	1550.5
47.5°	1298.6	1323.5	1369.1	1436.5	1449.9
50°	1195.0	1217.8	1263.4	1328.7	1349.4
52.5°	1087.2	1112.1	1156.6	1216.7	1246.8
55°	983.6	1000.1	1048.8	1106.9	1139.0
57.5°	875.8	891.3	946.2	996.0	1029.2
60°	772.1	791.8	834.3	885.1	923.4
62.5°	672.6	693.4	729.6	774.2	817.7
65°	576.2	591.8	627.0	671.6	709.9
67.5°	483.0	496.4	531.7	562.8	603.2
70°	388.7	406.3	432.2	462.2	488.1
72.5°	313.0	320.3	342.0	363.8	390.7
75°	231.1	243.6	261.2	273.6	289.2
77.5°	165.8	173.1	183.4	193.8	208.3
80°	110.9	114.0	123.3	125.4	136.8
82.5°	67.4	69.4	71.5	72.5	76.7
85°	36.3	36.3	36.3	34.2	34.2
87.5°	20.7	20.7	17.6	14.5	10.4
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)