

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: P557600

Luminaire Tested: **FUSL-12-4-LD4-2STD-40-UNV-93-84-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: P557600
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-40-UNV-93-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

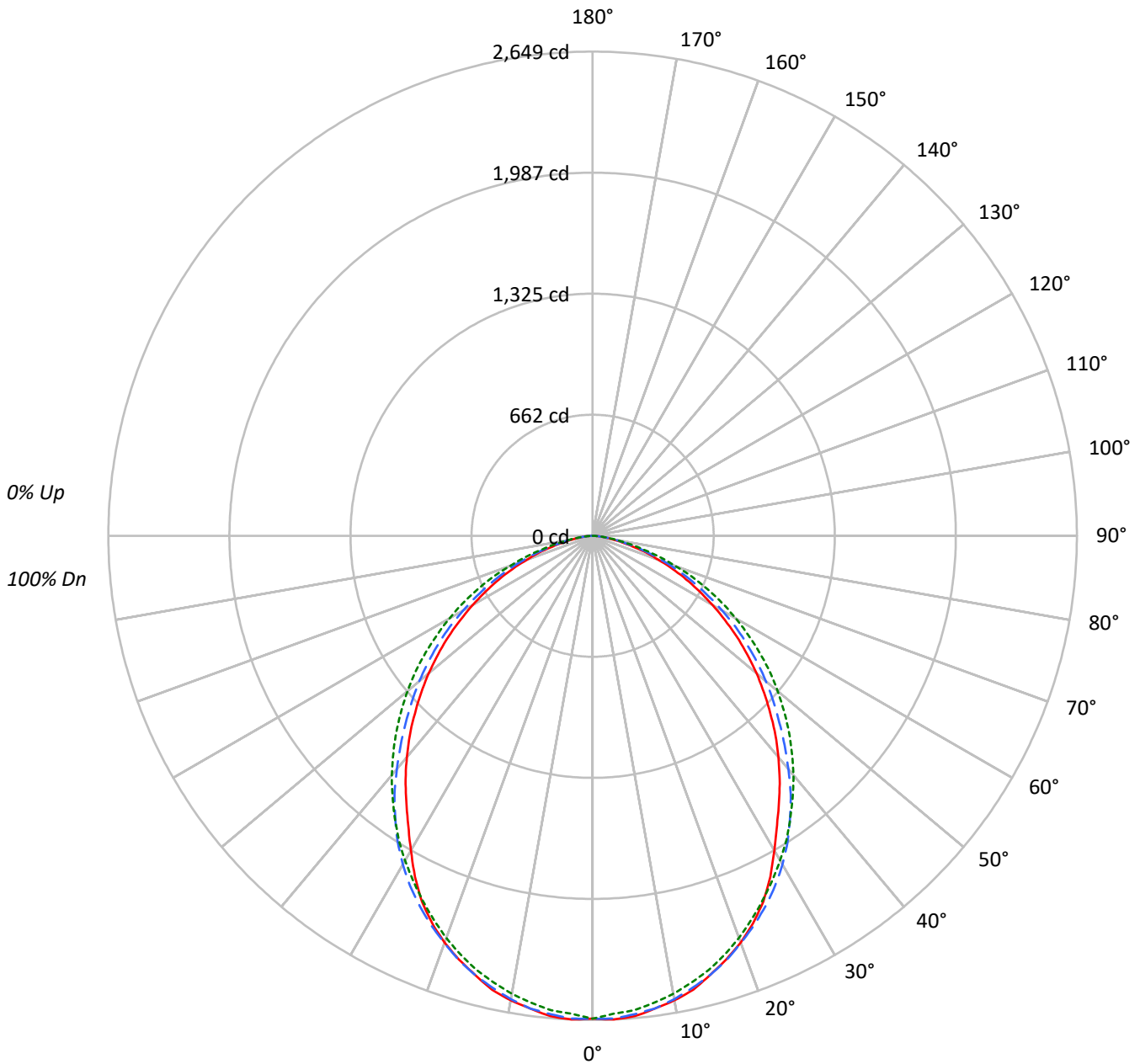
Lumens per Lamp: N/A
Luminaire Lumens: 6109.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7110	7110	7110
5°	7128	7098	7038
10°	7053	7033	6953
15°	6928	6928	6849
20°	6781	6790	6702
25°	6558	6639	6534
30°	6175	6453	6374
35°	5835	6185	6195
40°	5551	5851	6004
45°	5234	5496	5778
50°	4899	5180	5532
55°	4519	4819	5233
60°	4070	4398	4867
65°	3593	3910	4427
70°	2995	3330	3762
75°	2353	2660	2944
80°	1683	1872	2077
85°	1096	1096	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.7	4.1
10°-20°	698.8	11.4
20°-30°	1021.2	16.7
30°-40°	1159.2	19.0
40°-50°	1119.0	18.3
50°-60°	923.1	15.1
60°-70°	614.7	10.1
70°-80°	275.1	4.5
80°-90°	49.2	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°	1968.8	32.2
0°-40°	3127.9	51.2
0°-60°	5170.0	84.6
0°-90°	6109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6109.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2642	2642	2642	2642	2642	
5°	2639	2638	2628	2614	2605	250
15°	2487	2493	2487	2476	2458	701
25°	2209	2226	2236	2220	2200	1011
35°	1776	1801	1883	1893	1886	1113
45°	1375	1399	1444	1510	1518	1061
55°	963	980	1027	1084	1116	860
65°	564	580	614	658	695	560
75°	226	238	256	268	283	247
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°	2642.0	2642.0	2642.0	2642.0	2642.0
2.5°	2649.1	2650.1	2644.0	2627.8	2617.6
5°	2638.9	2637.9	2627.8	2613.6	2605.4
7.5°	2609.5	2611.5	2608.5	2588.2	2577.0
10°	2581.1	2582.1	2574.0	2557.7	2544.5
12.5°	2544.5	2543.5	2532.4	2524.2	2502.9
15°	2486.7	2492.8	2486.7	2475.5	2458.3
17.5°	2430.9	2430.9	2434.9	2415.6	2402.5
20°	2367.9	2371.0	2371.0	2355.8	2340.5
22.5°	2294.9	2304.0	2307.0	2290.8	2272.5
25°	2208.6	2225.8	2236.0	2219.8	2200.5
27.5°	2104.0	2130.4	2160.9	2148.7	2127.4
30°	1987.3	2025.9	2076.6	2066.5	2051.3
32.5°	1876.7	1915.3	1985.3	1981.2	1973.1
35°	1776.2	1800.6	1882.8	1892.9	1885.8
37.5°	1680.8	1703.1	1780.3	1803.6	1797.5
40°	1580.3	1604.7	1665.6	1707.2	1709.2
42.5°	1480.9	1504.2	1553.9	1613.8	1613.8
45°	1375.3	1398.6	1444.3	1510.3	1518.4
47.5°	1271.8	1296.1	1340.8	1406.8	1420.0
50°	1170.3	1192.6	1237.3	1301.2	1321.5
52.5°	1064.7	1089.1	1132.7	1191.6	1221.0
55°	963.2	979.5	1027.2	1084.0	1115.5
57.5°	857.7	872.9	926.7	975.4	1007.9
60°	756.2	775.4	817.1	866.8	904.3
62.5°	658.7	679.0	714.5	758.2	800.8
65°	564.3	579.6	614.1	657.7	695.3
67.5°	473.0	486.2	520.7	551.1	590.7
70°	380.6	397.9	423.2	452.7	478.1
72.5°	306.5	313.6	334.9	356.3	382.6
75°	226.3	238.5	255.8	268.0	283.2
77.5°	162.4	169.5	179.7	189.8	204.0
80°	108.6	111.6	120.8	122.8	134.0
82.5°	66.0	68.0	70.0	71.0	75.1
85°	35.5	35.5	35.5	33.5	33.5
87.5°	20.3	20.3	17.3	14.2	10.1
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)