

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: P557345

Luminaire Tested: **FUSL-12-4-LD4-2LO-40-UNV-93-84-EDD**

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: P557345
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-LD4-2LO-40-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

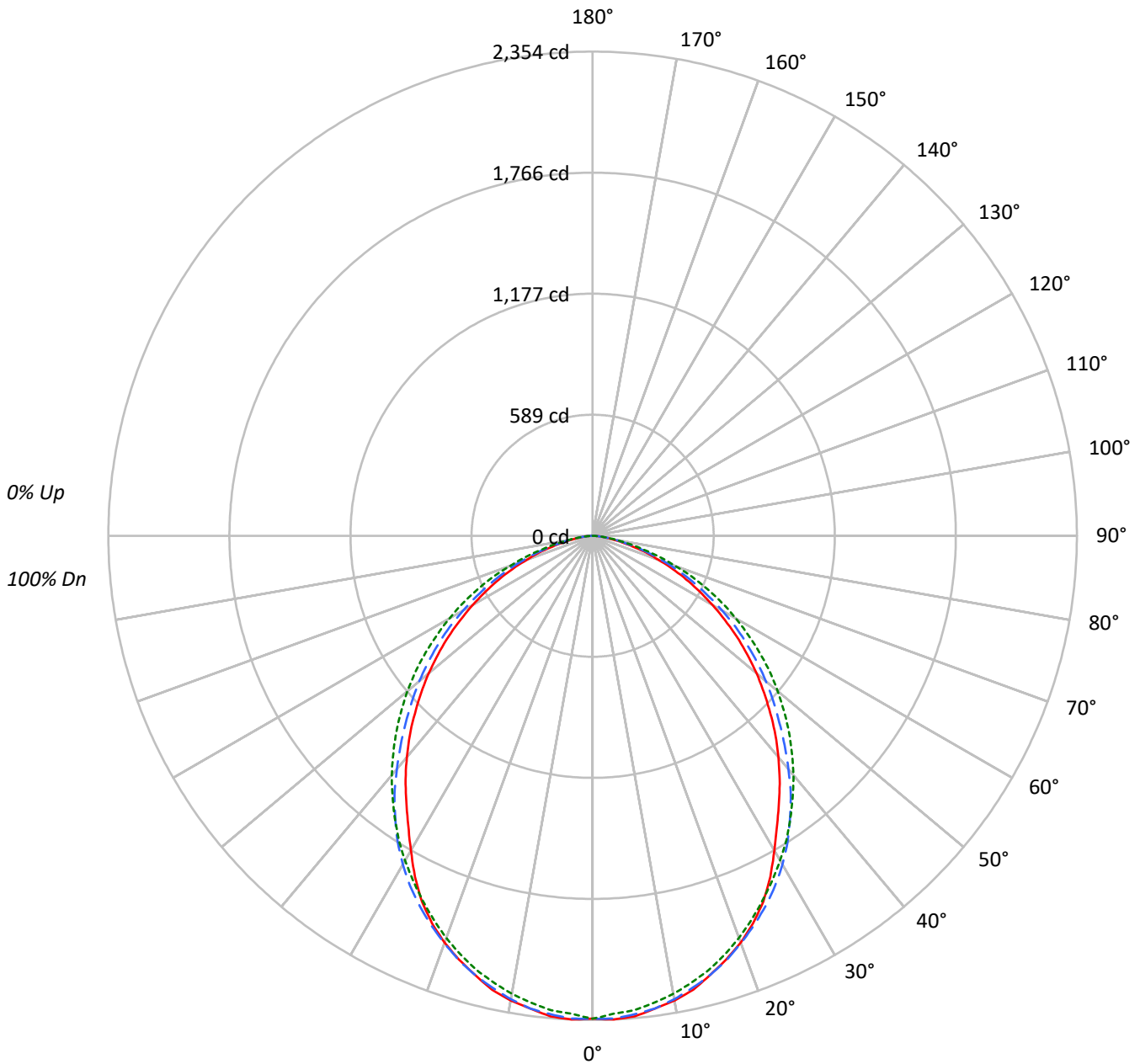
Lumens per Lamp: N/A
Luminaire Lumens: 5429.0 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	6318	6318	6318
5°	6335	6308	6254
10°	6268	6251	6179
15°	6157	6157	6086
20°	6026	6034	5956
25°	5828	5900	5806
30°	5488	5734	5664
35°	5185	5497	5505
40°	4933	5200	5336
45°	4651	4885	5135
50°	4354	4603	4917
55°	4016	4282	4651
60°	3617	3908	4325
65°	3193	3475	3934
70°	2661	2959	3342
75°	2091	2363	2617
80°	1495	1663	1846
85°	976	976	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.1	4.1
10°-20°	621.0	11.4
20°-30°	907.5	16.7
30°-40°	1030.1	19.0
40°-50°	994.4	18.3
50°-60°	820.3	15.1
60°-70°	546.3	10.1
70°-80°	244.5	4.5
80°-90°	43.7	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°	1749.6	32.2
0°-40°	2779.8	51.2
0°-60°	4594.5	84.6
0°-90°	5429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2348	2348	2348	2348	2348	
5°	2345	2344	2335	2323	2315	222
15°	2210	2215	2210	2200	2185	623
25°	1963	1978	1987	1973	1956	899
35°	1578	1600	1673	1682	1676	989
45°	1222	1243	1284	1342	1349	943
55°	856	870	913	963	991	764
65°	502	515	546	584	618	497
75°	201	212	227	238	252	220
85°	32	32	32	30	30	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2347.9	2347.9	2347.9	2347.9	2347.9
2.5°	2354.2	2355.1	2349.7	2335.3	2326.3
5°	2345.2	2344.3	2335.3	2322.6	2315.4
7.5°	2319.0	2320.8	2318.1	2300.1	2290.2
10°	2293.8	2294.7	2287.5	2273.0	2261.3
12.5°	2261.3	2260.4	2250.5	2243.3	2224.3
15°	2209.9	2215.3	2209.9	2200.0	2184.6
17.5°	2160.3	2160.3	2163.9	2146.8	2135.0
20°	2104.4	2107.1	2107.1	2093.5	2080.0
22.5°	2039.4	2047.5	2050.2	2035.8	2019.6
25°	1962.7	1978.1	1987.1	1972.7	1955.5
27.5°	1869.8	1893.3	1920.4	1909.5	1890.6
30°	1766.1	1800.4	1845.5	1836.5	1822.9
32.5°	1667.8	1702.1	1764.3	1760.7	1753.5
35°	1578.5	1600.1	1673.2	1682.2	1675.9
37.5°	1493.7	1513.6	1582.1	1602.9	1597.4
40°	1404.4	1426.1	1480.2	1517.2	1519.0
42.5°	1316.0	1336.8	1381.0	1434.2	1434.2
45°	1222.2	1243.0	1283.5	1342.2	1349.4
47.5°	1130.2	1151.9	1191.5	1250.2	1261.9
50°	1040.0	1059.8	1099.5	1156.4	1174.4
52.5°	946.2	967.8	1006.6	1058.9	1085.1
55°	856.0	870.4	912.8	963.3	991.3
57.5°	762.2	775.7	823.5	866.8	895.7
60°	672.0	689.1	726.1	770.3	803.7
62.5°	585.4	603.4	635.0	673.8	711.7
65°	501.5	515.0	545.7	584.5	617.9
67.5°	420.3	432.1	462.7	489.8	525.0
70°	338.2	353.6	376.1	402.3	424.8
72.5°	272.4	278.7	297.7	316.6	340.1
75°	201.1	212.0	227.3	238.1	251.7
77.5°	144.3	150.6	159.7	168.7	181.3
80°	96.5	99.2	107.3	109.1	119.1
82.5°	58.6	60.4	62.2	63.1	66.7
85°	31.6	31.6	31.6	29.8	29.8
87.5°	18.0	18.0	15.3	12.6	9.0
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)