

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: P557432

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-80-88-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: P557432
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-30-UNV-80-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

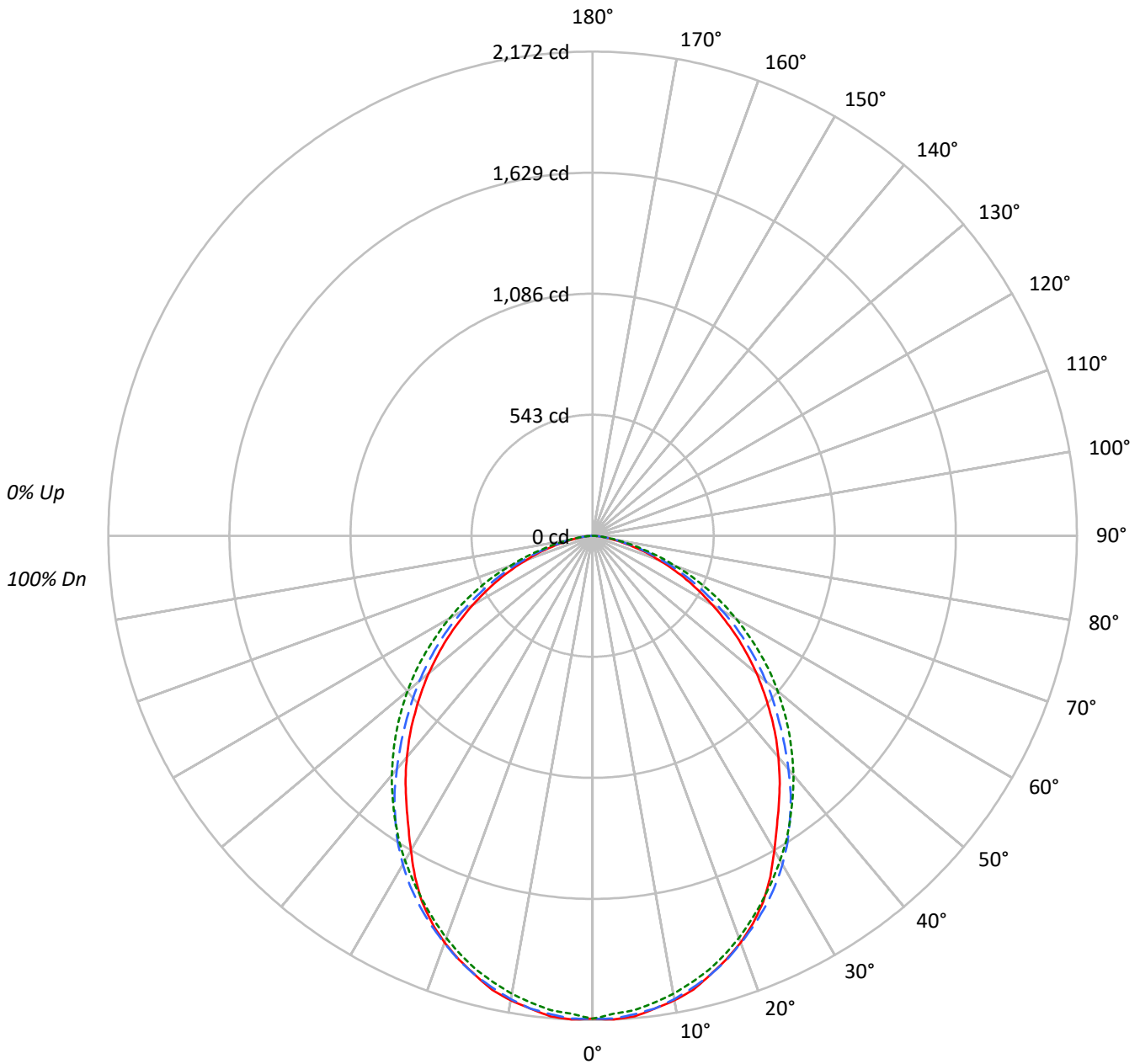
Lumens per Lamp: N/A
Luminaire Lumens: 5009.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5829	5829	5829
5°	5845	5820	5771
10°	5783	5767	5701
15°	5680	5680	5615
20°	5560	5567	5496
25°	5377	5444	5357
30°	5063	5291	5226
35°	4784	5072	5080
40°	4552	4797	4923
45°	4292	4507	4738
50°	4017	4247	4536
55°	3705	3951	4291
60°	3337	3605	3991
65°	2946	3206	3630
70°	2456	2730	3084
75°	1930	2180	2414
80°	1379	1534	1703
85°	898	898	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.0	4.1
10°-20°	573.0	11.4
20°-30°	837.3	16.7
30°-40°	950.5	19.0
40°-50°	917.5	18.3
50°-60°	756.9	15.1
60°-70°	504.0	10.1
70°-80°	225.5	4.5
80°-90°	40.3	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°	1614.3	32.2
0°-40°	2564.7	51.2
0°-60°	4239.1	84.6
0°-90°	5009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5009.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2166	2166	2166	2166	2166	
5°	2164	2163	2155	2143	2136	205
15°	2039	2044	2039	2030	2016	575
25°	1811	1825	1833	1820	1804	829
35°	1456	1476	1544	1552	1546	913
45°	1128	1147	1184	1238	1245	870
55°	790	803	842	889	915	705
65°	463	475	504	539	570	459
75°	186	196	210	220	232	203
85°	29	29	29	28	28	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2166.3	2166.3	2166.3	2166.3	2166.3
2.5°	2172.1	2172.9	2167.9	2154.6	2146.3
5°	2163.8	2162.9	2154.6	2143.0	2136.3
7.5°	2139.6	2141.3	2138.8	2122.2	2113.0
10°	2116.3	2117.2	2110.5	2097.2	2086.4
12.5°	2086.4	2085.5	2076.4	2069.7	2052.2
15°	2038.9	2043.9	2038.9	2029.8	2015.6
17.5°	1993.2	1993.2	1996.5	1980.7	1969.9
20°	1941.6	1944.1	1944.1	1931.6	1919.1
22.5°	1881.6	1889.1	1891.6	1878.3	1863.3
25°	1810.9	1825.1	1833.4	1820.1	1804.2
27.5°	1725.2	1746.8	1771.8	1761.8	1744.3
30°	1629.5	1661.1	1702.7	1694.4	1681.9
32.5°	1538.8	1570.4	1627.8	1624.5	1617.8
35°	1456.4	1476.4	1543.8	1552.1	1546.3
37.5°	1378.2	1396.5	1459.7	1478.9	1473.9
40°	1295.8	1315.7	1365.7	1399.8	1401.5
42.5°	1214.2	1233.3	1274.1	1323.2	1323.2
45°	1127.7	1146.8	1184.2	1238.3	1245.0
47.5°	1042.8	1062.7	1099.4	1153.5	1164.3
50°	959.5	977.9	1014.5	1066.9	1083.5
52.5°	873.0	893.0	928.8	977.0	1001.2
55°	789.8	803.1	842.2	888.8	914.6
57.5°	703.2	715.7	759.8	799.8	826.4
60°	620.0	635.8	669.9	710.7	741.5
62.5°	540.1	556.8	585.9	621.7	656.6
65°	462.7	475.2	503.5	539.3	570.1
67.5°	387.8	398.6	426.9	451.9	484.4
70°	312.1	326.2	347.0	371.2	392.0
72.5°	251.3	257.2	274.6	292.1	313.7
75°	185.6	195.6	209.7	219.7	232.2
77.5°	133.2	139.0	147.3	155.6	167.3
80°	89.0	91.5	99.0	100.7	109.9
82.5°	54.1	55.8	57.4	58.3	61.6
85°	29.1	29.1	29.1	27.5	27.5
87.5°	16.6	16.6	14.1	11.7	8.3
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)