

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: P557480

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-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: P557480
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-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 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

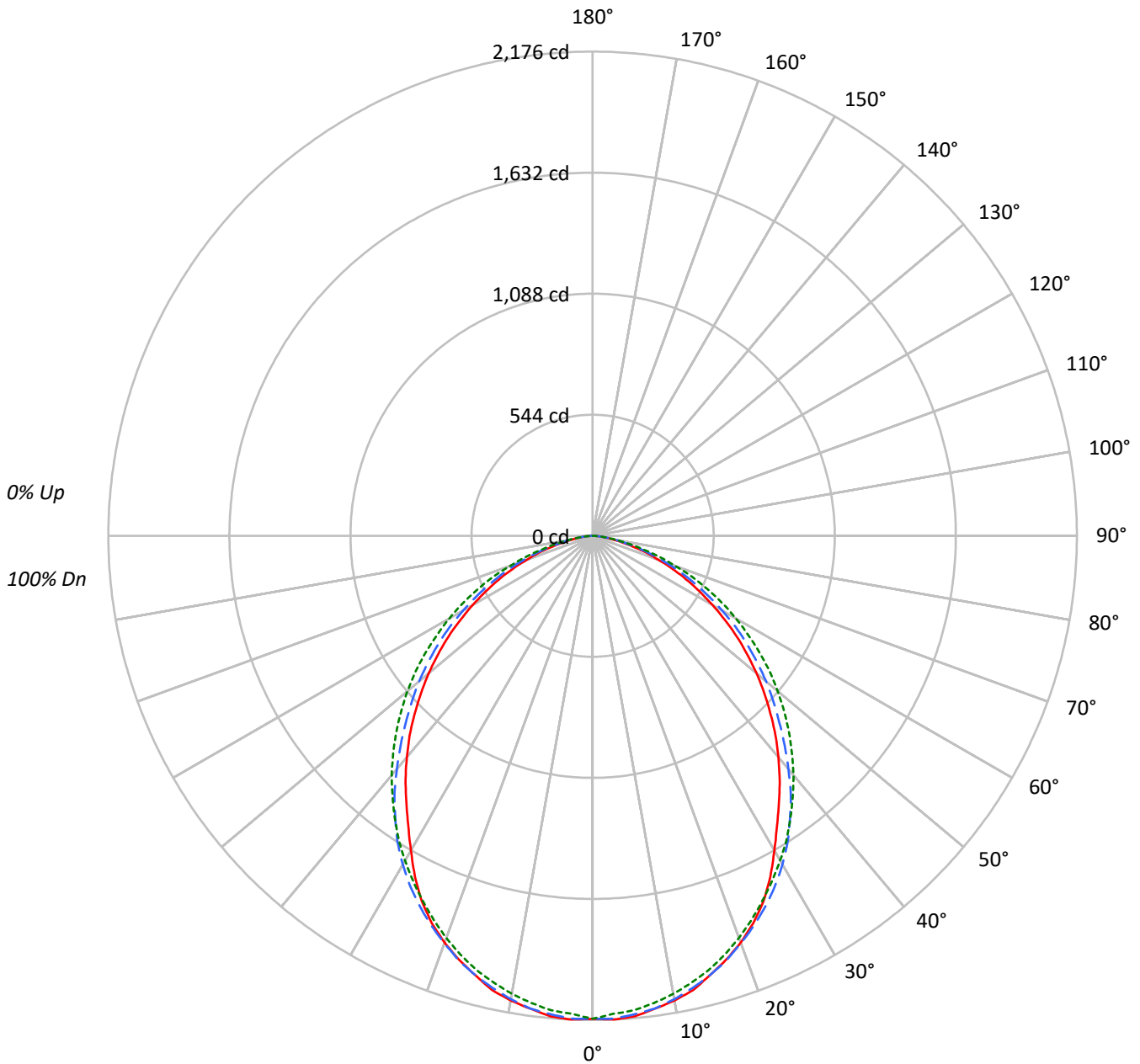
Lumens per Lamp: N/A
Luminaire Lumens: 5019.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	5841	5841	5841
5°	5857	5832	5782
10°	5795	5778	5712
15°	5692	5692	5627
20°	5571	5578	5507
25°	5388	5454	5368
30°	5073	5301	5237
35°	4794	5081	5090
40°	4561	4807	4933
45°	4300	4516	4748
50°	4025	4255	4545
55°	3713	3959	4299
60°	3343	3613	3999
65°	2952	3212	3637
70°	2460	2736	3091
75°	1934	2184	2419
80°	1382	1537	1706
85°	902	902	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.4	4.1
10°-20°	574.1	11.4
20°-30°	839.0	16.7
30°-40°	952.3	19.0
40°-50°	919.3	18.3
50°-60°	758.4	15.1
60°-70°	505.0	10.1
70°-80°	226.0	4.5
80°-90°	40.4	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°	1617.5	32.2
0°-40°	2569.8	51.2
0°-60°	4247.6	84.6
0°-90°	5019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2171	2171	2171	2171	2171	
5°	2168	2167	2159	2147	2141	205
15°	2043	2048	2043	2034	2020	576
25°	1814	1829	1837	1824	1808	831
35°	1459	1479	1547	1555	1549	914
45°	1130	1149	1187	1241	1248	872
55°	791	805	844	891	916	706
65°	464	476	504	540	571	460
75°	186	196	210	220	233	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°	2170.6	2170.6	2170.6	2170.6	2170.6
2.5°	2176.4	2177.3	2172.3	2158.9	2150.6
5°	2168.1	2167.3	2158.9	2147.2	2140.6
7.5°	2143.9	2145.6	2143.1	2126.4	2117.2
10°	2120.6	2121.4	2114.7	2101.4	2090.5
12.5°	2090.5	2089.7	2080.5	2073.9	2056.3
15°	2043.0	2048.0	2043.0	2033.8	2019.7
17.5°	1997.1	1997.1	2000.5	1984.6	1973.8
20°	1945.4	1947.9	1947.9	1935.4	1922.9
22.5°	1885.4	1892.9	1895.4	1882.1	1867.1
25°	1814.5	1828.7	1837.0	1823.7	1807.9
27.5°	1728.6	1750.3	1775.3	1765.3	1747.8
30°	1632.7	1664.4	1706.1	1697.8	1685.3
32.5°	1541.8	1573.5	1631.1	1627.7	1621.1
35°	1459.3	1479.3	1546.8	1555.2	1549.3
37.5°	1380.9	1399.2	1462.6	1481.8	1476.8
40°	1298.4	1318.4	1368.4	1402.6	1404.3
42.5°	1216.6	1235.8	1276.7	1325.9	1325.9
45°	1129.9	1149.1	1186.6	1240.8	1247.5
47.5°	1044.9	1064.9	1101.6	1155.8	1166.6
50°	961.5	979.8	1016.5	1069.0	1085.7
52.5°	874.7	894.8	930.6	979.0	1003.2
55°	791.4	804.7	843.9	890.6	916.4
57.5°	704.6	717.1	761.3	801.4	828.0
60°	621.2	637.1	671.3	712.1	743.0
62.5°	541.2	557.9	587.1	622.9	657.9
65°	463.6	476.1	504.5	540.4	571.2
67.5°	388.6	399.4	427.8	452.8	485.3
70°	312.7	326.9	347.7	371.9	392.8
72.5°	251.8	257.7	275.2	292.7	314.4
75°	186.0	196.0	210.1	220.1	232.7
77.5°	133.4	139.3	147.6	155.9	167.6
80°	89.2	91.7	99.2	100.9	110.1
82.5°	54.2	55.9	57.5	58.4	61.7
85°	29.2	29.2	29.2	27.5	27.5
87.5°	16.7	16.7	14.2	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)