

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: P557448

Luminaire Tested: **FUSL-12-4-LD4-2STD-30-UNV-81-88-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: P557448
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-81-88-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC 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

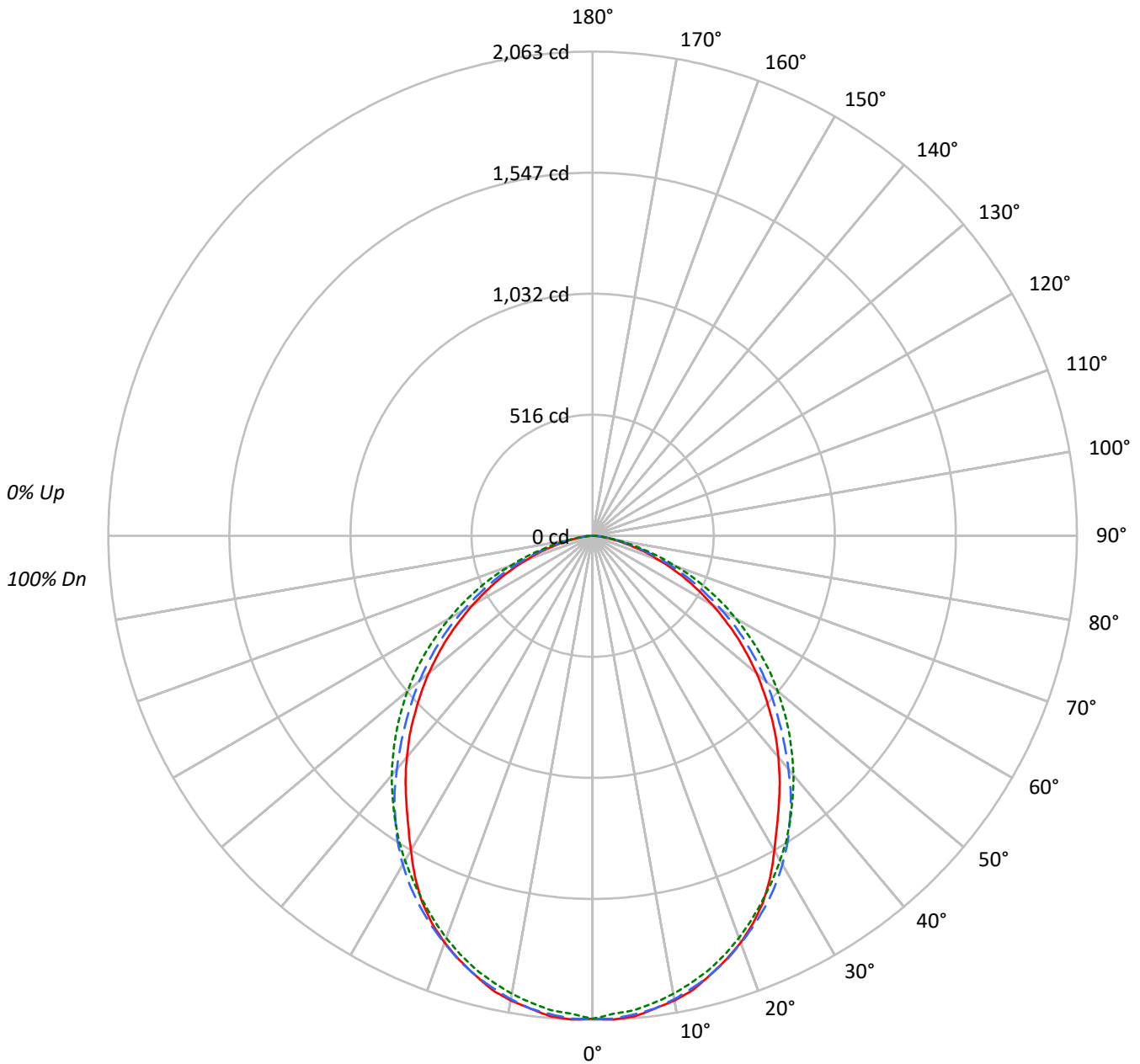
Lumens per Lamp: N/A
Luminaire Lumens: 4758.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 66.6
Input Voltage (V): NR
Input Current (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									
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°	5537	5537	5537
5°	5552	5528	5482
10°	5493	5478	5415
15°	5396	5396	5334
20°	5281	5288	5220
25°	5108	5171	5089
30°	4809	5026	4964
35°	4545	4817	4825
40°	4324	4557	4676
45°	4076	4281	4501
50°	3816	4034	4309
55°	3520	3753	4076
60°	3169	3425	3791
65°	2798	3046	3448
70°	2332	2593	2929
75°	1833	2071	2294
80°	1311	1458	1616
85°	855	855	806



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.7	4.1
10°-20°	544.3	11.4
20°-30°	795.4	16.7
30°-40°	902.8	19.0
40°-50°	871.5	18.3
50°-60°	719.0	15.1
60°-70°	478.8	10.1
70°-80°	214.2	4.5
80°-90°	38.3	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°	1533.4	32.2
0°-40°	2436.2	51.2
0°-60°	4026.7	84.6
0°-90°	4758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2058	2058	2058	2058	2058	
5°	2055	2055	2047	2036	2029	195
15°	1937	1942	1937	1928	1915	546
25°	1720	1734	1742	1729	1714	788
35°	1383	1402	1466	1474	1469	867
45°	1071	1089	1125	1176	1183	826
55°	750	763	800	844	869	670
65°	440	451	478	512	542	436
75°	176	186	199	209	221	193
85°	28	28	28	26	26	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2057.7	2057.7	2057.7	2057.7	2057.7
2.5°	2063.2	2064.0	2059.3	2046.6	2038.7
5°	2055.3	2054.6	2046.6	2035.6	2029.3
7.5°	2032.4	2034.0	2031.6	2015.8	2007.1
10°	2010.3	2011.1	2004.7	1992.1	1981.8
12.5°	1981.8	1981.0	1972.3	1966.0	1949.4
15°	1936.8	1941.5	1936.8	1928.1	1914.6
17.5°	1893.3	1893.3	1896.4	1881.4	1871.2
20°	1844.3	1846.6	1846.6	1834.8	1822.9
22.5°	1787.4	1794.5	1796.8	1784.2	1770.0
25°	1720.2	1733.6	1741.5	1728.9	1713.8
27.5°	1638.7	1659.3	1683.0	1673.5	1656.9
30°	1547.8	1577.9	1617.4	1609.5	1597.6
32.5°	1461.7	1491.7	1546.2	1543.1	1536.8
35°	1383.4	1402.4	1466.4	1474.3	1468.8
37.5°	1309.1	1326.5	1386.6	1404.7	1400.0
40°	1230.8	1249.8	1297.2	1329.6	1331.2
42.5°	1153.4	1171.5	1210.3	1256.9	1256.9
45°	1071.1	1089.3	1124.9	1176.3	1182.6
47.5°	990.5	1009.5	1044.3	1095.7	1105.9
50°	911.5	928.9	963.6	1013.4	1029.3
52.5°	829.3	848.2	882.2	928.1	951.0
55°	750.2	762.8	800.0	844.3	868.8
57.5°	668.0	679.8	721.7	759.7	785.0
60°	588.9	604.0	636.4	675.1	704.3
62.5°	513.0	528.9	556.5	590.5	623.7
65°	439.5	451.4	478.3	512.3	541.5
67.5°	368.4	378.7	405.5	429.2	460.1
70°	296.4	309.9	329.6	352.6	372.3
72.5°	238.7	244.3	260.9	277.5	298.0
75°	176.3	185.8	199.2	208.7	220.6
77.5°	126.5	132.0	139.9	147.8	158.9
80°	84.6	87.0	94.1	95.7	104.3
82.5°	51.4	53.0	54.5	55.3	58.5
85°	27.7	27.7	27.7	26.1	26.1
87.5°	15.8	15.8	13.4	11.1	7.9
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)