

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: P556069

Luminaire Tested: **FUSL-12-2-LD4-3STD-40-UNV-93-86-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: P556069
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-12-2-LD4-3STD-40-UNV-93-86-EDD
Description: 2FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

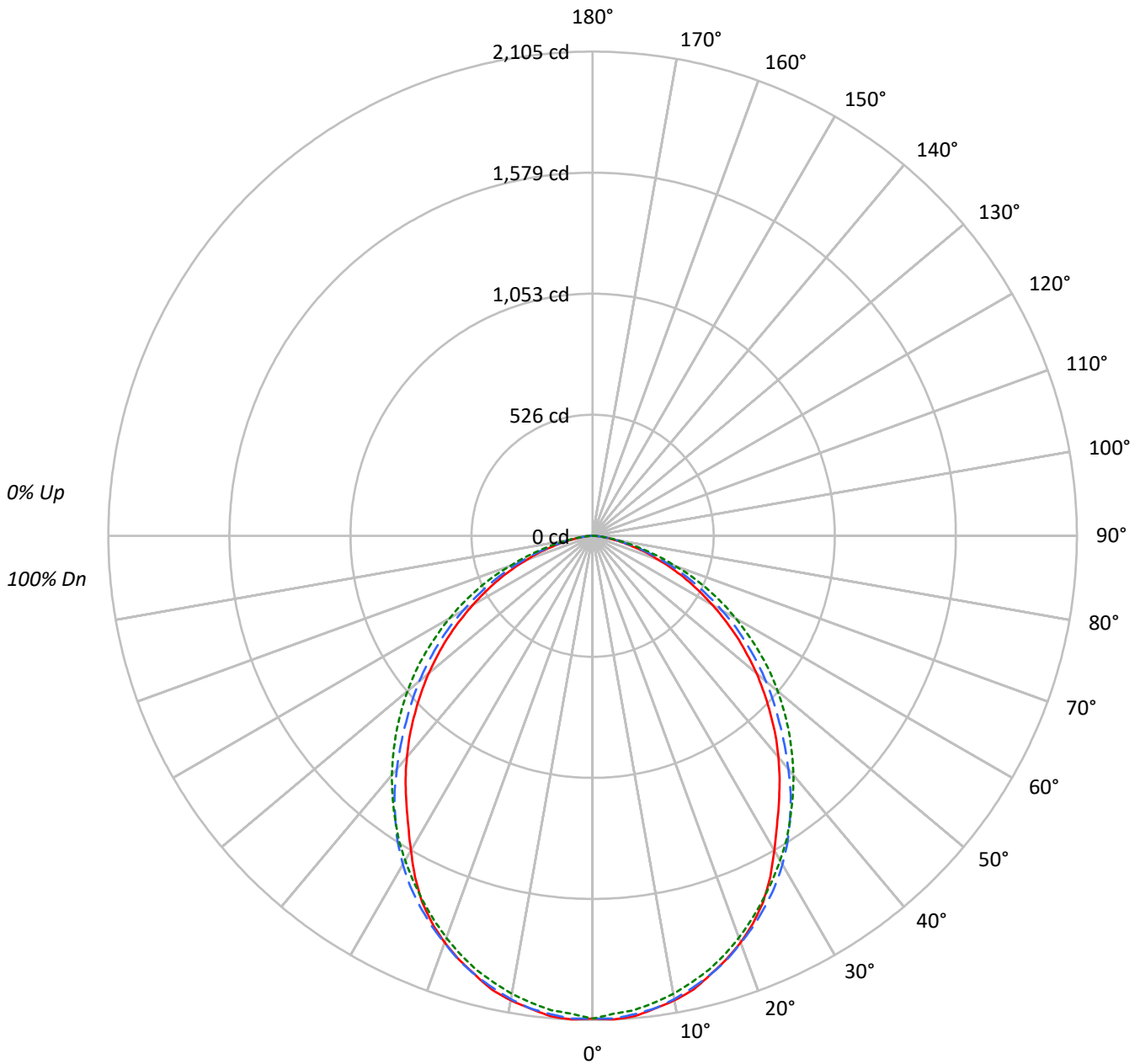
Lumens per Lamp: N/A
Luminaire Lumens: 4854.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 50
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°	11298	11298	11298
5°	11328	11280	11184
10°	11208	11177	11049
15°	11009	11009	10883
20°	10776	10790	10651
25°	10421	10550	10383
30°	9813	10254	10129
35°	9272	9829	9845
40°	8822	9298	9542
45°	8318	8735	9183
50°	7786	8231	8791
55°	7181	7658	8316
60°	6467	6988	7735
65°	5710	6213	7035
70°	4759	5292	5976
75°	3739	4225	4679
80°	2675	2975	3301
85°	1741	1741	1643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.6	4.1
10°-20°	555.3	11.4
20°-30°	811.4	16.7
30°-40°	921.0	19.0
40°-50°	889.1	18.3
50°-60°	733.5	15.1
60°-70°	488.4	10.1
70°-80°	218.6	4.5
80°-90°	39.1	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°	1564.3	32.2
0°-40°	2485.3	51.2
0°-60°	4107.9	84.6
0°-90°	4854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2099	2099	2099	2099	2099	
5°	2097	2096	2088	2077	2070	198
15°	1976	1981	1976	1967	1953	557
25°	1755	1769	1777	1764	1748	804
35°	1411	1431	1496	1504	1498	884
45°	1093	1111	1148	1200	1206	843
55°	765	778	816	861	886	683
65°	448	460	488	523	552	445
75°	180	190	203	213	225	197
85°	28	28	28	27	27	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2099.2	2099.2	2099.2	2099.2	2099.2
2.5°	2104.9	2105.7	2100.8	2087.9	2079.9
5°	2096.8	2096.0	2087.9	2076.6	2070.2
7.5°	2073.4	2075.0	2072.6	2056.5	2047.6
10°	2050.8	2051.6	2045.2	2032.3	2021.8
12.5°	2021.8	2021.0	2012.1	2005.7	1988.7
15°	1975.8	1980.7	1975.8	1967.0	1953.3
17.5°	1931.5	1931.5	1934.7	1919.4	1908.9
20°	1881.5	1883.9	1883.9	1871.8	1859.7
22.5°	1823.4	1830.7	1833.1	1820.2	1805.7
25°	1754.9	1768.6	1776.6	1763.7	1748.4
27.5°	1671.8	1692.8	1717.0	1707.3	1690.4
30°	1579.1	1609.7	1650.0	1642.0	1629.9
32.5°	1491.2	1521.8	1577.4	1574.2	1567.8
35°	1411.3	1430.7	1496.0	1504.1	1498.4
37.5°	1335.5	1353.2	1414.5	1433.1	1428.3
40°	1255.7	1275.0	1323.4	1356.5	1358.1
42.5°	1176.6	1195.2	1234.7	1282.3	1282.3
45°	1092.8	1111.3	1147.6	1200.0	1206.5
47.5°	1010.5	1029.9	1065.3	1117.8	1128.2
50°	929.9	947.6	983.1	1033.9	1050.0
52.5°	846.0	865.3	900.0	946.8	970.2
55°	765.3	778.2	816.1	861.3	886.3
57.5°	681.5	693.6	736.3	775.0	800.8
60°	600.8	616.1	649.2	688.7	718.6
62.5°	523.4	539.5	567.8	602.4	636.3
65°	448.4	460.5	487.9	522.6	552.4
67.5°	375.8	386.3	413.7	437.9	469.4
70°	302.4	316.1	336.3	359.7	379.8
72.5°	243.6	249.2	266.1	283.1	304.0
75°	179.8	189.5	203.2	212.9	225.0
77.5°	129.0	134.7	142.7	150.8	162.1
80°	86.3	88.7	96.0	97.6	106.5
82.5°	52.4	54.0	55.6	56.5	59.7
85°	28.2	28.2	28.2	26.6	26.6
87.5°	16.1	16.1	13.7	11.3	8.1
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)