

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: P557283

Luminaire Tested: **FUSL-12-4-LD4-2LO-35-UNV-93-85-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: P557283
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-35-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE
AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

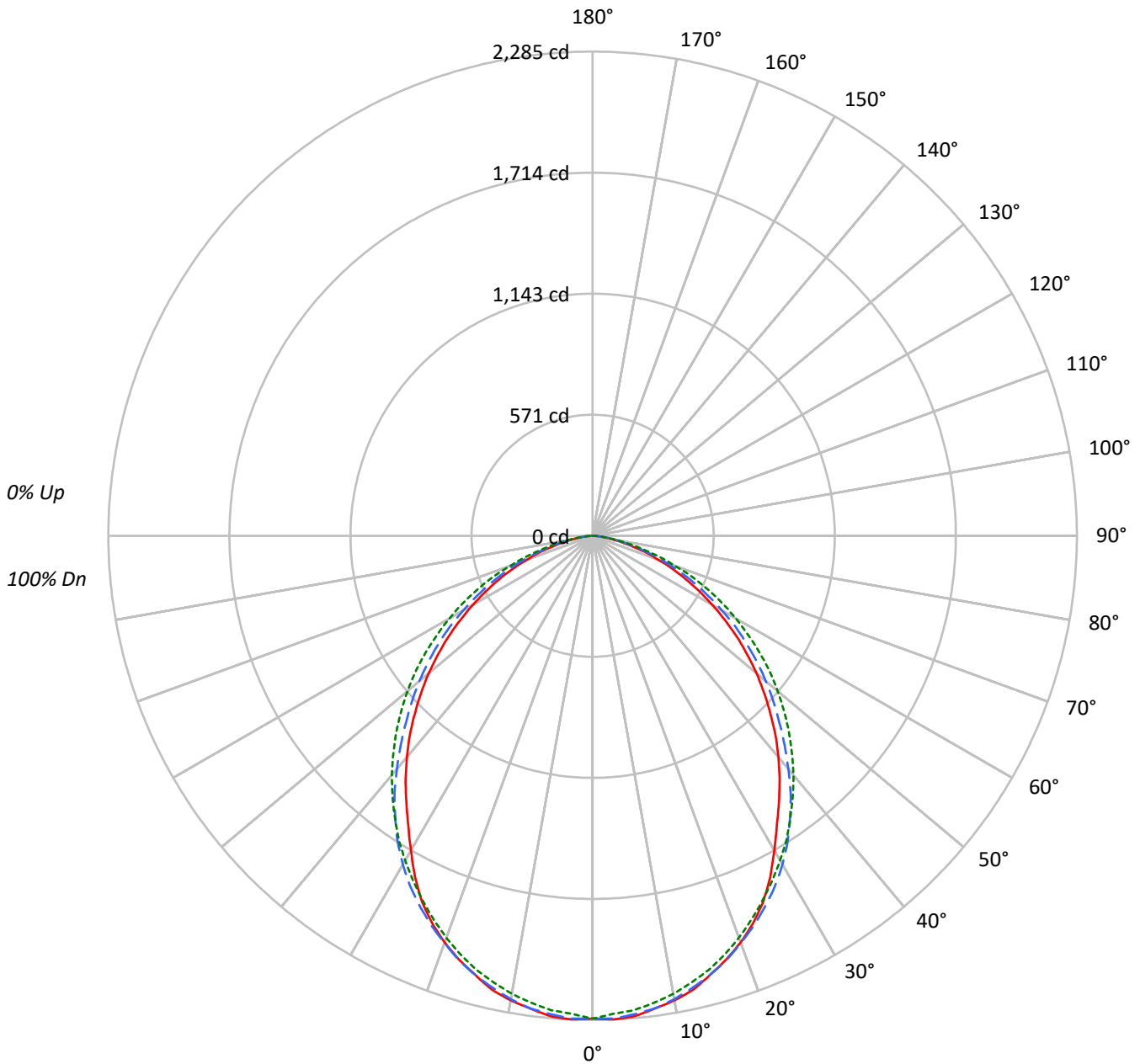
Lumens per Lamp: N/A
Luminaire Lumens: 5269.0 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P557283

CATALOG NUMBER: FUSL-12-4-LD4-2LO-35-UNV-93-85-EDD

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°	6132	6132	6132
5°	6148	6122	6070
10°	6083	6066	5997
15°	5975	5975	5907
20°	5848	5856	5781
25°	5656	5726	5635
30°	5326	5565	5497
35°	5033	5335	5343
40°	4788	5047	5179
45°	4514	4741	4984
50°	4226	4467	4772
55°	3898	4156	4514
60°	3510	3793	4198
65°	3099	3372	3819
70°	2583	2872	3244
75°	2030	2294	2539
80°	1452	1615	1791
85°	945	945	892



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.5	4.1
10°-20°	602.7	11.4
20°-30°	880.8	16.7
30°-40°	999.8	19.0
40°-50°	965.1	18.3
50°-60°	796.2	15.1
60°-70°	530.2	10.1
70°-80°	237.2	4.5
80°-90°	42.5	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°	1698.0	32.2
0°-40°	2697.8	51.2
0°-60°	4459.1	84.6
0°-90°	5269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5269.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2276	2275	2266	2254	2247	215
15°	2145	2150	2145	2135	2120	605
25°	1905	1920	1928	1914	1898	872
35°	1532	1553	1624	1633	1626	960
45°	1186	1206	1246	1303	1310	915
55°	831	845	886	935	962	741
65°	487	500	530	567	600	483
75°	195	206	221	231	244	213
85°	31	31	31	29	29	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2284.8	2285.7	2280.5	2266.5	2257.7
5°	2276.1	2275.2	2266.5	2254.2	2247.2
7.5°	2250.7	2252.4	2249.8	2232.3	2222.7
10°	2226.2	2227.1	2220.1	2206.0	2194.7
12.5°	2194.7	2193.8	2184.2	2177.2	2158.8
15°	2144.8	2150.0	2144.8	2135.1	2120.3
17.5°	2096.6	2096.6	2100.1	2083.5	2072.1
20°	2042.3	2045.0	2045.0	2031.8	2018.7
22.5°	1979.3	1987.2	1989.8	1975.8	1960.1
25°	1904.9	1919.8	1928.5	1914.5	1897.9
27.5°	1814.7	1837.5	1863.8	1853.3	1834.9
30°	1714.1	1747.3	1791.1	1782.3	1769.2
32.5°	1618.6	1651.9	1712.3	1708.8	1701.8
35°	1532.0	1553.0	1623.9	1632.6	1626.5
37.5°	1449.7	1468.9	1535.5	1555.6	1550.4
40°	1363.0	1384.0	1436.6	1472.4	1474.2
42.5°	1277.2	1297.4	1340.3	1391.9	1391.9
45°	1186.2	1206.3	1245.7	1302.6	1309.6
47.5°	1096.9	1117.9	1156.4	1213.3	1224.7
50°	1009.4	1028.6	1067.1	1122.3	1139.8
52.5°	918.3	939.3	977.0	1027.7	1053.1
55°	830.8	844.8	885.9	934.9	962.1
57.5°	739.7	752.9	799.3	841.3	869.3
60°	652.2	668.8	704.7	747.6	780.0
62.5°	568.1	585.7	616.3	653.9	690.7
65°	486.7	499.9	529.6	567.3	599.7
67.5°	407.9	419.3	449.1	475.4	509.5
70°	328.3	343.2	365.0	390.4	412.3
72.5°	264.4	270.5	288.9	307.3	330.0
75°	195.2	205.7	220.6	231.1	244.2
77.5°	140.1	146.2	154.9	163.7	176.0
80°	93.7	96.3	104.2	105.9	115.6
82.5°	56.9	58.7	60.4	61.3	64.8
85°	30.6	30.6	30.6	28.9	28.9
87.5°	17.5	17.5	14.9	12.3	8.8
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)