

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: P557178

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-80-94-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: P557178
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-30-UNV-80-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

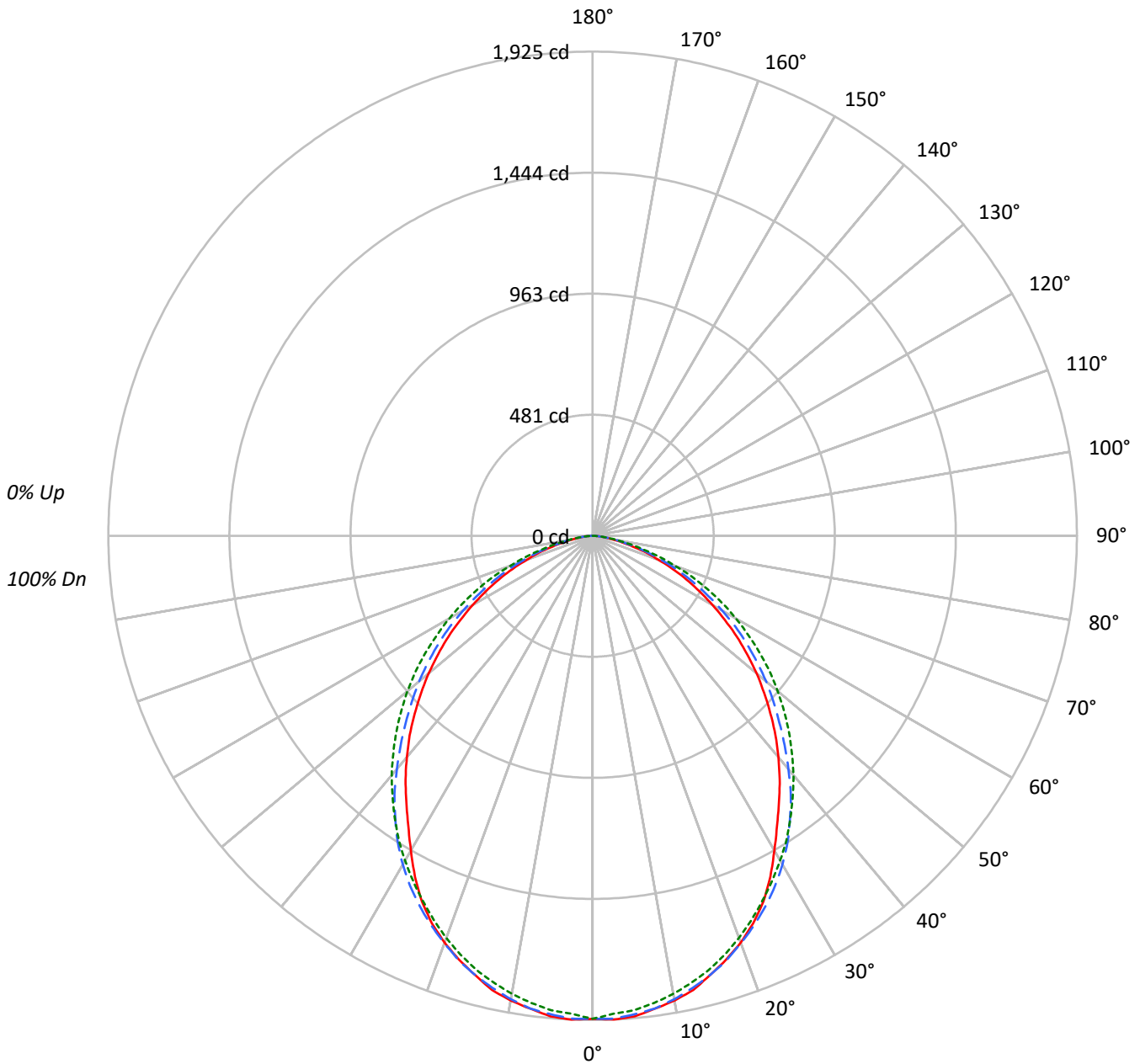
Lumens per Lamp: N/A
Luminaire Lumens: 4440.0 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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: P557178

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-80-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P557178

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-80-94-EDD-90

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°	5167	5167	5167
5°	5181	5159	5115
10°	5126	5112	5053
15°	5035	5035	4978
20°	4928	4935	4871
25°	4766	4825	4749
30°	4488	4690	4633
35°	4241	4495	4503
40°	4035	4252	4364
45°	3804	3995	4200
50°	3561	3764	4021
55°	3285	3502	3803
60°	2958	3196	3538
65°	2612	2842	3217
70°	2176	2420	2733
75°	1710	1933	2140
80°	1223	1361	1509
85°	797	797	750



TEST NUMBER: P557178

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-80-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.8	4.1
10°-20°	507.9	11.4
20°-30°	742.2	16.7
30°-40°	842.5	19.0
40°-50°	813.3	18.3
50°-60°	670.9	15.1
60°-70°	446.8	10.1
70°-80°	199.9	4.5
80°-90°	35.8	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°	1430.9	32.2
0°-40°	2273.4	51.2
0°-60°	3757.5	84.6
0°-90°	4440.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4440.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1920	1920	1920	1920	1920	
5°	1918	1917	1910	1900	1894	182
15°	1807	1812	1807	1799	1787	509
25°	1605	1618	1625	1613	1599	735
35°	1291	1309	1368	1376	1371	809
45°	1000	1016	1050	1098	1104	771
55°	700	712	746	788	811	625
65°	410	421	446	478	505	407
75°	164	173	186	195	206	180
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



TEST NUMBER: P557178

CATALOG NUMBER: FUSL-12-4-LD4-2LO-30-UNV-80-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1920.2	1920.2	1920.2	1920.2	1920.2
2.5°	1925.3	1926.1	1921.7	1909.9	1902.5
5°	1918.0	1917.2	1909.9	1899.5	1893.6
7.5°	1896.6	1898.1	1895.8	1881.1	1873.0
10°	1875.9	1876.7	1870.8	1859.0	1849.4
12.5°	1849.4	1848.6	1840.5	1834.6	1819.1
15°	1807.3	1811.7	1807.3	1799.2	1786.7
17.5°	1766.7	1766.7	1769.7	1755.7	1746.1
20°	1721.0	1723.2	1723.2	1712.2	1701.1
22.5°	1667.9	1674.5	1676.8	1664.9	1651.7
25°	1605.2	1617.7	1625.1	1613.3	1599.3
27.5°	1529.2	1548.4	1570.5	1561.7	1546.2
30°	1444.4	1472.4	1509.3	1501.9	1490.9
32.5°	1364.0	1392.0	1442.9	1440.0	1434.1
35°	1290.9	1308.6	1368.4	1375.8	1370.6
37.5°	1221.6	1237.8	1293.9	1310.9	1306.4
40°	1148.6	1166.3	1210.5	1240.8	1242.3
42.5°	1076.3	1093.2	1129.4	1172.9	1172.9
45°	999.6	1016.5	1049.7	1097.7	1103.6
47.5°	924.3	942.0	974.5	1022.4	1032.0
50°	850.5	866.8	899.2	945.7	960.5
52.5°	773.8	791.5	823.3	866.0	887.4
55°	700.1	711.9	746.5	787.8	810.7
57.5°	623.3	634.4	673.5	708.9	732.5
60°	549.6	563.6	593.8	630.0	657.3
62.5°	478.8	493.5	519.3	551.0	582.0
65°	410.2	421.2	446.3	478.0	505.3
67.5°	343.8	353.3	378.4	400.6	429.3
70°	276.6	289.2	307.6	329.0	347.4
72.5°	222.8	227.9	243.4	258.9	278.1
75°	164.5	173.4	185.9	194.7	205.8
77.5°	118.0	123.2	130.6	137.9	148.3
80°	78.9	81.1	87.8	89.3	97.4
82.5°	47.9	49.4	50.9	51.6	54.6
85°	25.8	25.8	25.8	24.3	24.3
87.5°	14.8	14.8	12.5	10.3	7.4
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)