

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: P557386

Luminaire Tested: **FUSL-12-4-LD4-2LO-50-UNV-81-94-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: P557386
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-50-UNV-81-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

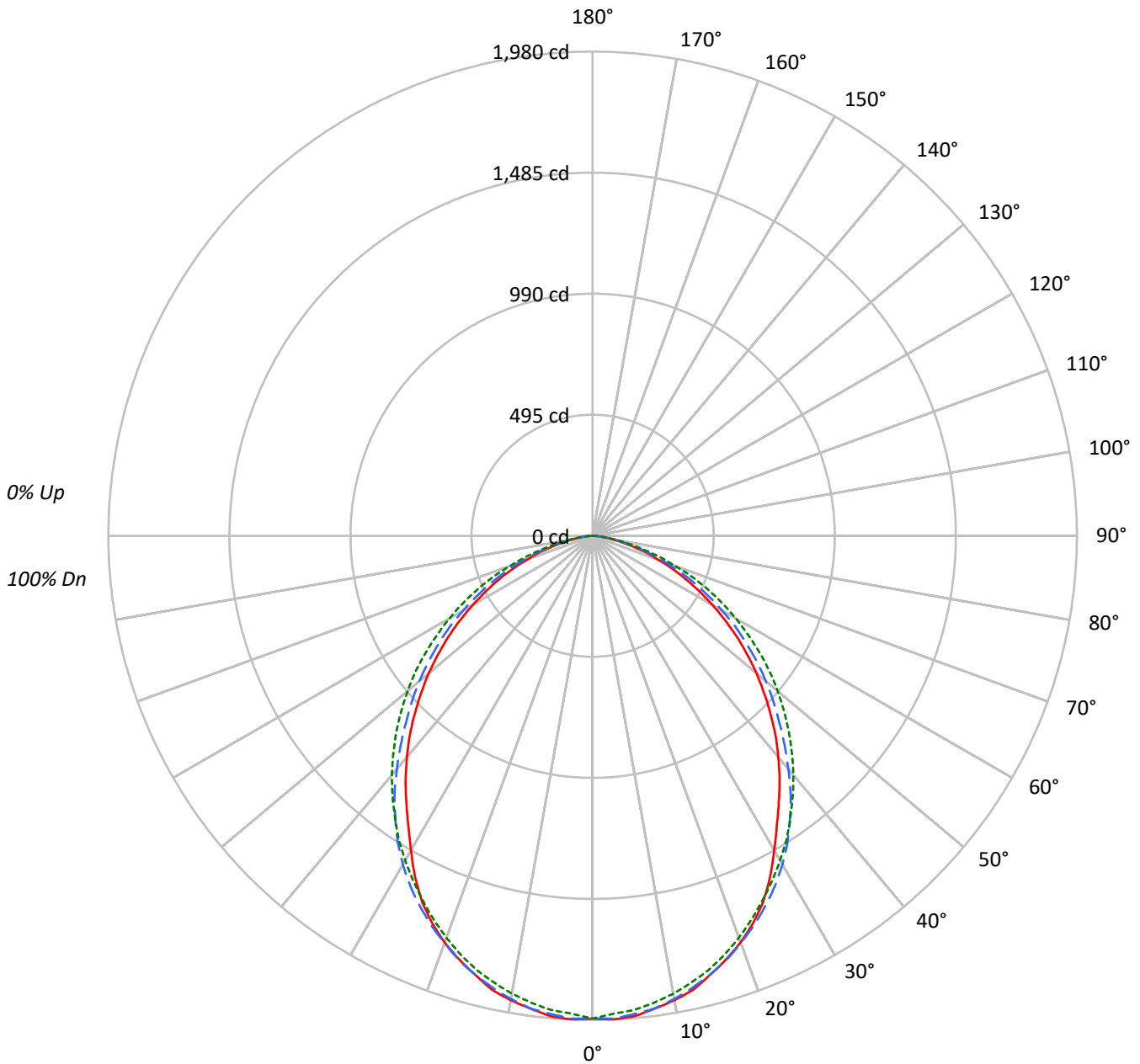
Lumens per Lamp: N/A
Luminaire Lumens: 4565.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	5313	5313	5313
5°	5327	5304	5259
10°	5270	5256	5196
15°	5177	5177	5118
20°	5067	5074	5009
25°	4900	4961	4882
30°	4614	4822	4763
35°	4360	4622	4629
40°	4148	4372	4487
45°	3911	4107	4318
50°	3661	3871	4134
55°	3377	3601	3910
60°	3041	3286	3637
65°	2685	2922	3308
70°	2238	2489	2810
75°	1758	1987	2200
80°	1258	1399	1551
85°	818	818	772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.9	4.1
10°-20°	522.2	11.4
20°-30°	763.1	16.7
30°-40°	866.2	19.0
40°-50°	836.2	18.3
50°-60°	689.8	15.1
60°-70°	459.3	10.1
70°-80°	205.5	4.5
80°-90°	36.8	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°	1471.2	32.2
0°-40°	2337.4	51.2
0°-60°	3863.3	84.6
0°-90°	4565.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4565.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1974	1974	1974	1974	1974	
5°	1972	1971	1964	1953	1947	187
15°	1858	1863	1858	1850	1837	524
25°	1650	1663	1671	1659	1644	756
35°	1327	1346	1407	1414	1409	832
45°	1028	1045	1079	1129	1135	793
55°	720	732	768	810	834	642
65°	422	433	459	492	520	418
75°	169	178	191	200	212	185
85°	26	26	26	25	25	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1974.2	1974.2	1974.2	1974.2	1974.2
2.5°	1979.6	1980.3	1975.8	1963.6	1956.0
5°	1972.0	1971.2	1963.6	1953.0	1946.9
7.5°	1950.0	1951.5	1949.2	1934.0	1925.7
10°	1928.7	1929.5	1923.4	1911.3	1901.4
12.5°	1901.4	1900.7	1892.3	1886.3	1870.3
15°	1858.2	1862.8	1858.2	1849.9	1837.0
17.5°	1816.5	1816.5	1819.5	1805.1	1795.3
20°	1769.5	1771.7	1771.7	1760.4	1749.0
22.5°	1714.9	1721.7	1724.0	1711.8	1698.2
25°	1650.4	1663.3	1670.9	1658.7	1644.3
27.5°	1572.3	1592.0	1614.7	1605.6	1589.7
30°	1485.0	1513.9	1551.8	1544.2	1532.8
32.5°	1402.4	1431.2	1483.5	1480.5	1474.4
35°	1327.3	1345.5	1406.9	1414.5	1409.2
37.5°	1256.0	1272.7	1330.3	1347.8	1343.2
40°	1180.9	1199.1	1244.6	1275.7	1277.2
42.5°	1106.6	1124.0	1161.2	1205.9	1205.9
45°	1027.7	1045.1	1079.3	1128.6	1134.6
47.5°	950.3	968.5	1001.9	1051.2	1061.1
50°	874.5	891.2	924.6	972.3	987.5
52.5°	795.6	813.8	846.4	890.4	912.4
55°	719.8	731.9	767.6	810.0	833.5
57.5°	640.9	652.3	692.5	728.9	753.1
60°	565.0	579.5	610.6	647.7	675.8
62.5°	492.2	507.4	533.9	566.6	598.4
65°	421.7	433.1	458.9	491.5	519.5
67.5°	353.4	363.3	389.1	411.8	441.4
70°	284.4	297.3	316.3	338.3	357.2
72.5°	229.1	234.4	250.3	266.2	285.9
75°	169.1	178.2	191.1	200.2	211.6
77.5°	121.4	126.7	134.2	141.8	152.4
80°	81.2	83.4	90.3	91.8	100.1
82.5°	49.3	50.8	52.3	53.1	56.1
85°	26.5	26.5	26.5	25.0	25.0
87.5°	15.2	15.2	12.9	10.6	7.6
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)