

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: P556209

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-80-84-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: P556209
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-LD4-1HI-35-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

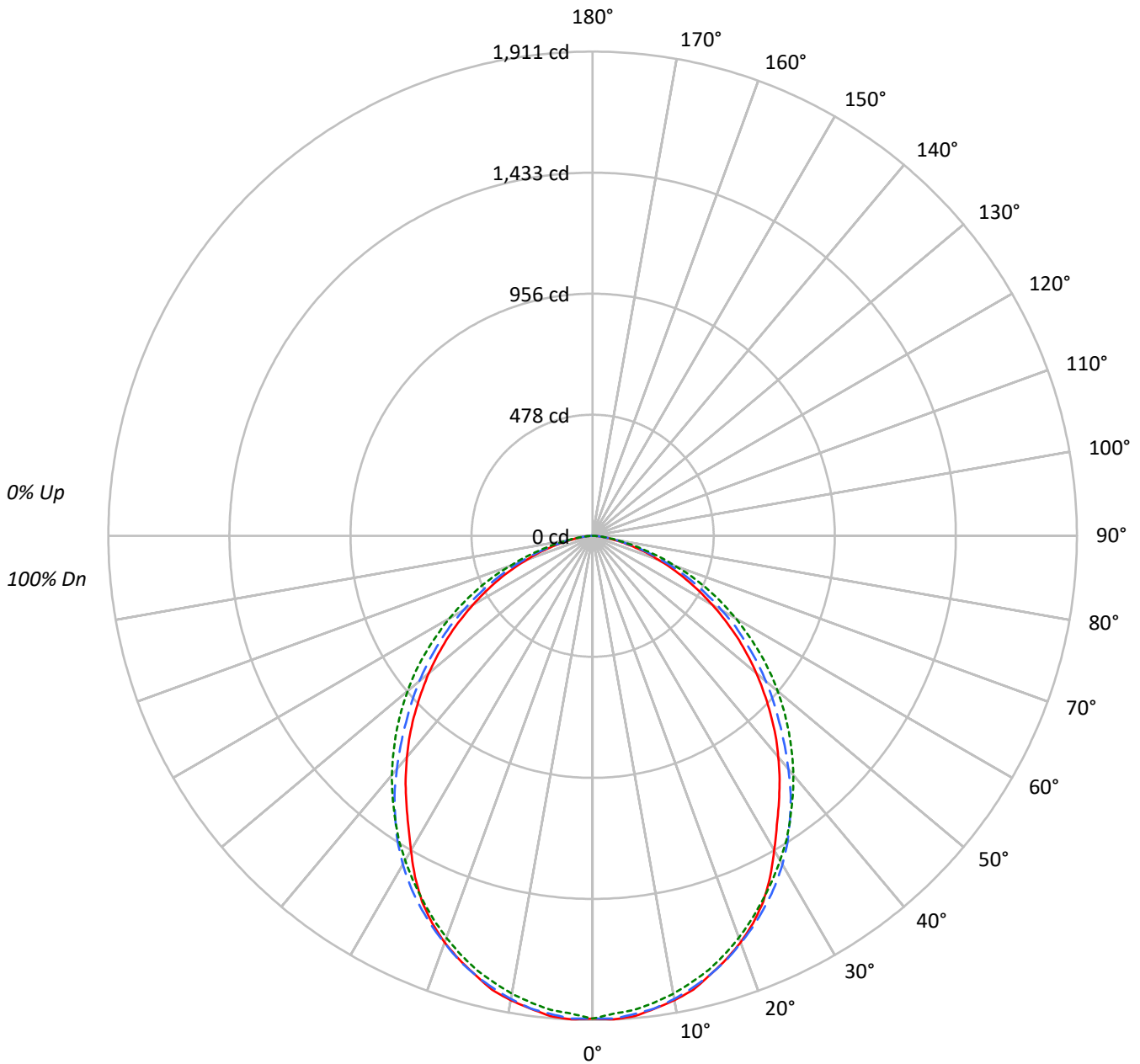
Lumens per Lamp: N/A
Luminaire Lumens: 4406.0 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	5128	5128	5128
5°	5141	5119	5076
10°	5087	5073	5015
15°	4997	4997	4939
20°	4891	4897	4834
25°	4730	4788	4712
30°	4454	4654	4597
35°	4209	4461	4468
40°	4004	4220	4330
45°	3775	3964	4168
50°	3533	3736	3990
55°	3259	3476	3774
60°	2935	3172	3510
65°	2592	2820	3193
70°	2160	2402	2713
75°	1697	1918	2123
80°	1213	1350	1497
85°	790	790	747



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.4	4.1
10°-20°	504.0	11.4
20°-30°	736.5	16.7
30°-40°	836.0	19.0
40°-50°	807.0	18.3
50°-60°	665.8	15.1
60°-70°	443.3	10.1
70°-80°	198.4	4.5
80°-90°	35.5	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°	1419.9	32.2
0°-40°	2255.9	51.2
0°-60°	3728.7	84.6
0°-90°	4406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1906	1906	1906	1906	1906	
5°	1903	1903	1895	1885	1879	180
15°	1794	1798	1794	1785	1773	506
25°	1593	1605	1613	1601	1587	729
35°	1281	1299	1358	1365	1360	803
45°	992	1009	1042	1089	1095	765
55°	695	706	741	782	804	620
65°	407	418	443	474	501	404
75°	163	172	184	193	204	178
85°	26	26	26	24	24	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1905.5	1905.5	1905.5	1905.5	1905.5
2.5°	1910.6	1911.3	1906.9	1895.2	1887.9
5°	1903.3	1902.6	1895.2	1885.0	1879.1
7.5°	1882.1	1883.5	1881.3	1866.7	1858.6
10°	1861.6	1862.3	1856.4	1844.7	1835.2
12.5°	1835.2	1834.5	1826.4	1820.6	1805.2
15°	1793.5	1797.9	1793.5	1785.4	1773.0
17.5°	1753.2	1753.2	1756.1	1742.2	1732.7
20°	1707.8	1710.0	1710.0	1699.0	1688.1
22.5°	1655.1	1661.7	1663.9	1652.2	1639.0
25°	1592.9	1605.3	1612.7	1601.0	1587.0
27.5°	1517.5	1536.5	1558.5	1549.7	1534.3
30°	1433.3	1461.1	1497.7	1490.4	1479.4
32.5°	1353.5	1381.3	1431.9	1428.9	1423.1
35°	1281.1	1298.6	1357.9	1365.2	1360.1
37.5°	1212.2	1228.4	1284.0	1300.8	1296.4
40°	1139.8	1157.3	1201.3	1231.3	1232.7
42.5°	1068.0	1084.9	1120.7	1163.9	1163.9
45°	991.9	1008.7	1041.7	1089.3	1095.1
47.5°	917.2	934.8	967.0	1014.6	1024.1
50°	844.0	860.1	892.3	938.5	953.1
52.5°	767.9	785.5	816.9	859.4	880.6
55°	694.7	706.4	740.8	781.8	804.5
57.5°	618.6	629.5	668.3	703.5	726.9
60°	545.4	559.3	589.3	625.2	652.2
62.5°	475.1	489.7	515.4	546.8	577.6
65°	407.0	418.0	442.9	474.4	501.4
67.5°	341.1	350.6	375.5	397.5	426.0
70°	274.5	287.0	305.3	326.5	344.8
72.5°	221.1	226.2	241.6	256.9	276.0
75°	163.2	172.0	184.5	193.3	204.2
77.5°	117.1	122.2	129.6	136.9	147.1
80°	78.3	80.5	87.1	88.6	96.6
82.5°	47.6	49.0	50.5	51.2	54.2
85°	25.6	25.6	25.6	24.2	24.2
87.5°	14.6	14.6	12.4	10.2	7.3
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)