

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: P556353

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-84-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: P556353
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-50-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

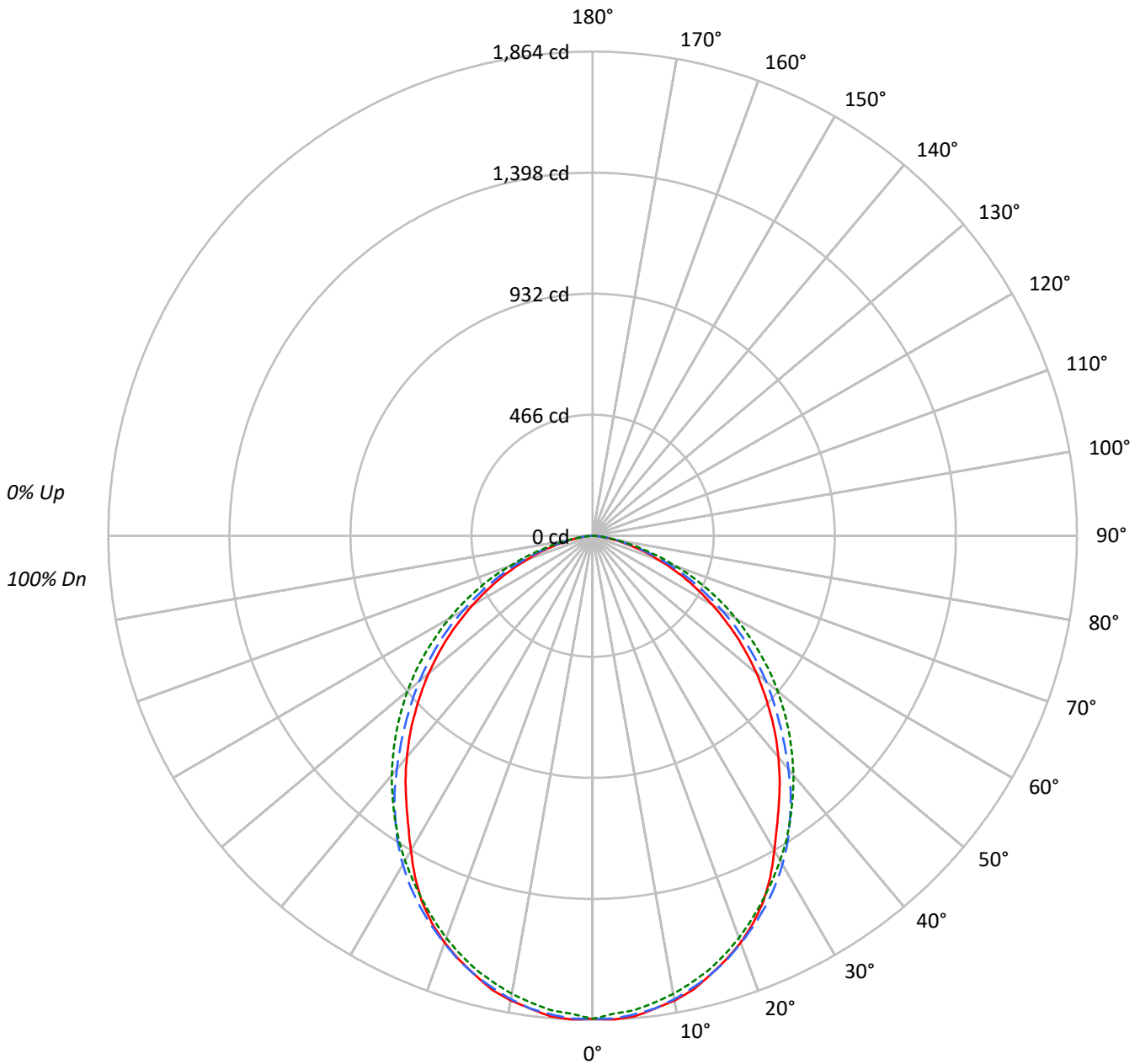
Lumens per Lamp: N/A
Luminaire Lumens: 4299.0 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	5003	5003	5003
5°	5017	4995	4953
10°	4963	4950	4893
15°	4875	4875	4819
20°	4772	4778	4717
25°	4615	4672	4598
30°	4346	4541	4485
35°	4106	4352	4360
40°	3907	4117	4225
45°	3683	3868	4066
50°	3448	3645	3893
55°	3180	3391	3683
60°	2864	3095	3425
65°	2528	2751	3116
70°	2107	2343	2647
75°	1656	1871	2072
80°	1184	1317	1461
85°	772	772	729



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	175.1	4.1
10°-20°	491.8	11.4
20°-30°	718.6	16.7
30°-40°	815.7	19.0
40°-50°	787.5	18.3
50°-60°	649.6	15.1
60°-70°	432.6	10.1
70°-80°	193.6	4.5
80°-90°	34.6	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°	1385.4	32.2
0°-40°	2201.2	51.2
0°-60°	3638.2	84.6
0°-90°	4299.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4299.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1859	1859	1859	1859	1859	
5°	1857	1856	1849	1839	1834	176
15°	1750	1754	1750	1742	1730	493
25°	1554	1566	1574	1562	1548	712
35°	1250	1267	1325	1332	1327	783
45°	968	984	1016	1063	1068	747
55°	678	689	723	763	785	605
65°	397	408	432	463	489	394
75°	159	168	180	189	199	174
85°	25	25	25	24	24	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1859.2	1859.2	1859.2	1859.2	1859.2
2.5°	1864.2	1864.9	1860.6	1849.2	1842.1
5°	1857.1	1856.3	1849.2	1839.2	1833.5
7.5°	1836.4	1837.8	1835.6	1821.4	1813.5
10°	1816.4	1817.1	1811.4	1799.9	1790.6
12.5°	1790.6	1789.9	1782.1	1776.4	1761.4
15°	1749.9	1754.2	1749.9	1742.1	1729.9
17.5°	1710.6	1710.6	1713.5	1699.9	1690.6
20°	1666.4	1668.5	1668.5	1657.8	1647.1
22.5°	1614.9	1621.4	1623.5	1612.1	1599.2
25°	1554.2	1566.4	1573.5	1562.1	1548.5
27.5°	1480.7	1499.2	1520.6	1512.1	1497.1
30°	1398.5	1425.7	1461.4	1454.2	1443.5
32.5°	1320.7	1347.8	1397.1	1394.2	1388.5
35°	1249.9	1267.1	1324.9	1332.1	1327.1
37.5°	1182.8	1198.5	1252.8	1269.2	1264.9
40°	1112.1	1129.2	1172.1	1201.4	1202.8
42.5°	1042.1	1058.5	1093.5	1135.7	1135.7
45°	967.8	984.2	1016.4	1062.8	1068.5
47.5°	895.0	912.1	943.5	990.0	999.2
50°	823.5	839.2	870.7	915.7	930.0
52.5°	749.3	766.4	797.1	838.5	859.2
55°	677.8	689.3	722.8	762.8	785.0
57.5°	603.5	614.3	652.1	686.4	709.3
60°	532.1	545.7	575.0	610.0	636.4
62.5°	463.6	477.8	502.8	533.5	563.5
65°	397.1	407.8	432.1	462.8	489.3
67.5°	332.8	342.1	366.4	387.8	415.7
70°	267.8	280.0	297.8	318.6	336.4
72.5°	215.7	220.7	235.7	250.7	269.3
75°	159.3	167.8	180.0	188.6	199.3
77.5°	114.3	119.3	126.4	133.6	143.6
80°	76.4	78.6	85.0	86.4	94.3
82.5°	46.4	47.9	49.3	50.0	52.9
85°	25.0	25.0	25.0	23.6	23.6
87.5°	14.3	14.3	12.1	10.0	7.1
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)