

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: P556365

Luminaire Tested: **FUSL-12-4-LD4-1HI-50-UNV-81-96-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: P556365
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-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250
CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

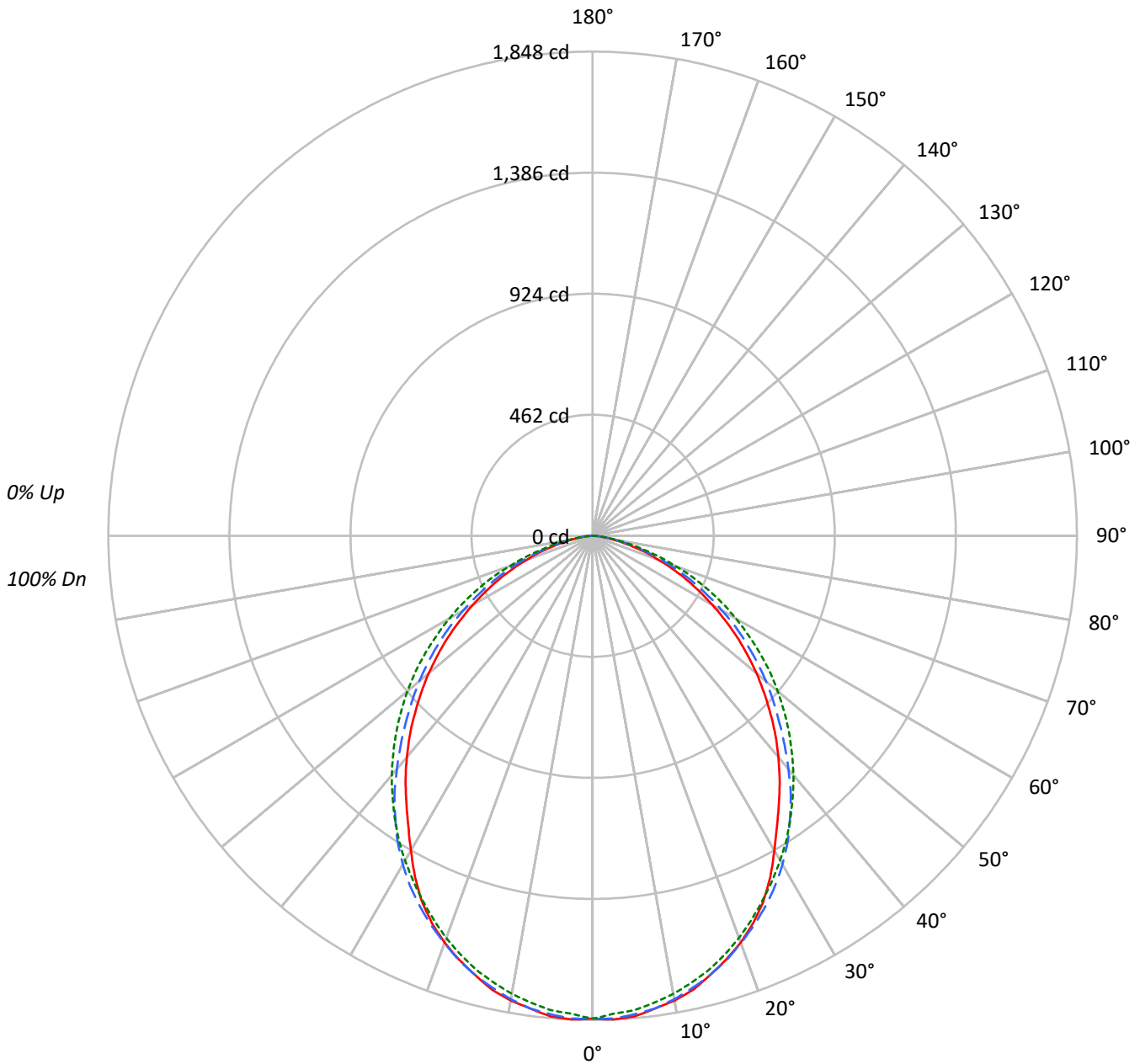
Lumens per Lamp: N/A
Luminaire Lumens: 4262.0 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
Input Voltage (V): NR
Input Current (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: P556365

CATALOG NUMBER: FUSL-12-4-LD4-1HI-50-UNV-81-96-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°	4960	4960	4960
5°	4973	4952	4910
10°	4920	4907	4851
15°	4833	4833	4778
20°	4731	4737	4676
25°	4575	4632	4558
30°	4308	4502	4447
35°	4071	4315	4322
40°	3873	4082	4189
45°	3651	3835	4031
50°	3418	3614	3860
55°	3153	3362	3651
60°	2839	3068	3395
65°	2507	2728	3089
70°	2089	2323	2624
75°	1642	1855	2054
80°	1175	1306	1449
85°	766	766	722



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	4.1
10°-20°	487.5	11.4
20°-30°	712.4	16.7
30°-40°	808.7	19.0
40°-50°	780.7	18.3
50°-60°	644.0	15.1
60°-70°	428.9	10.1
70°-80°	191.9	4.5
80°-90°	34.3	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°	1373.5	32.2
0°-40°	2182.2	51.2
0°-60°	3606.9	84.6
0°-90°	4262.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4262.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1843	1843	1843	1843	1843	
5°	1841	1840	1833	1823	1818	174
15°	1735	1739	1735	1727	1715	489
25°	1541	1553	1560	1549	1535	706
35°	1239	1256	1314	1321	1316	776
45°	960	976	1008	1054	1059	740
55°	672	683	717	756	778	600
65°	394	404	428	459	485	390
75°	158	166	178	187	198	173
85°	25	25	25	23	23	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1843.2	1843.2	1843.2	1843.2	1843.2
2.5°	1848.2	1848.9	1844.6	1833.3	1826.2
5°	1841.1	1840.4	1833.3	1823.4	1817.7
7.5°	1820.5	1822.0	1819.8	1805.7	1797.9
10°	1800.7	1801.4	1795.8	1784.4	1775.2
12.5°	1775.2	1774.5	1766.7	1761.1	1746.2
15°	1734.9	1739.1	1734.9	1727.1	1715.0
17.5°	1695.9	1695.9	1698.8	1685.3	1676.1
20°	1652.0	1654.1	1654.1	1643.5	1632.9
22.5°	1601.0	1607.4	1609.5	1598.2	1585.5
25°	1540.8	1552.9	1560.0	1548.6	1535.2
27.5°	1467.9	1486.3	1507.6	1499.1	1484.2
30°	1386.5	1413.4	1448.8	1441.7	1431.1
32.5°	1309.3	1336.2	1385.1	1382.2	1376.6
35°	1239.2	1256.2	1313.5	1320.6	1315.7
37.5°	1172.6	1188.2	1242.0	1258.3	1254.1
40°	1102.5	1119.5	1162.0	1191.0	1192.5
42.5°	1033.1	1049.4	1084.1	1125.9	1125.9
45°	959.5	975.8	1007.6	1053.7	1059.3
47.5°	887.3	904.3	935.4	981.4	990.6
50°	816.4	832.0	863.2	907.8	922.0
52.5°	742.8	759.8	790.2	831.3	851.9
55°	672.0	683.3	716.6	756.3	778.2
57.5°	598.4	609.0	646.5	680.5	703.2
60°	527.5	541.0	570.0	604.7	630.9
62.5°	459.6	473.7	498.5	529.0	558.7
65°	393.7	404.3	428.4	458.9	485.1
67.5°	330.0	339.2	363.3	384.5	412.1
70°	265.5	277.6	295.3	315.8	333.5
72.5°	213.8	218.8	233.7	248.5	267.0
75°	157.9	166.4	178.4	186.9	197.6
77.5°	113.3	118.3	125.3	132.4	142.3
80°	75.8	77.9	84.3	85.7	93.5
82.5°	46.0	47.4	48.9	49.6	52.4
85°	24.8	24.8	24.8	23.4	23.4
87.5°	14.2	14.2	12.0	9.9	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)