

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: P557225

Luminaire Tested: **FUSL-12-4-LD4-2LO-30-UNV-93-88-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: P557225
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-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

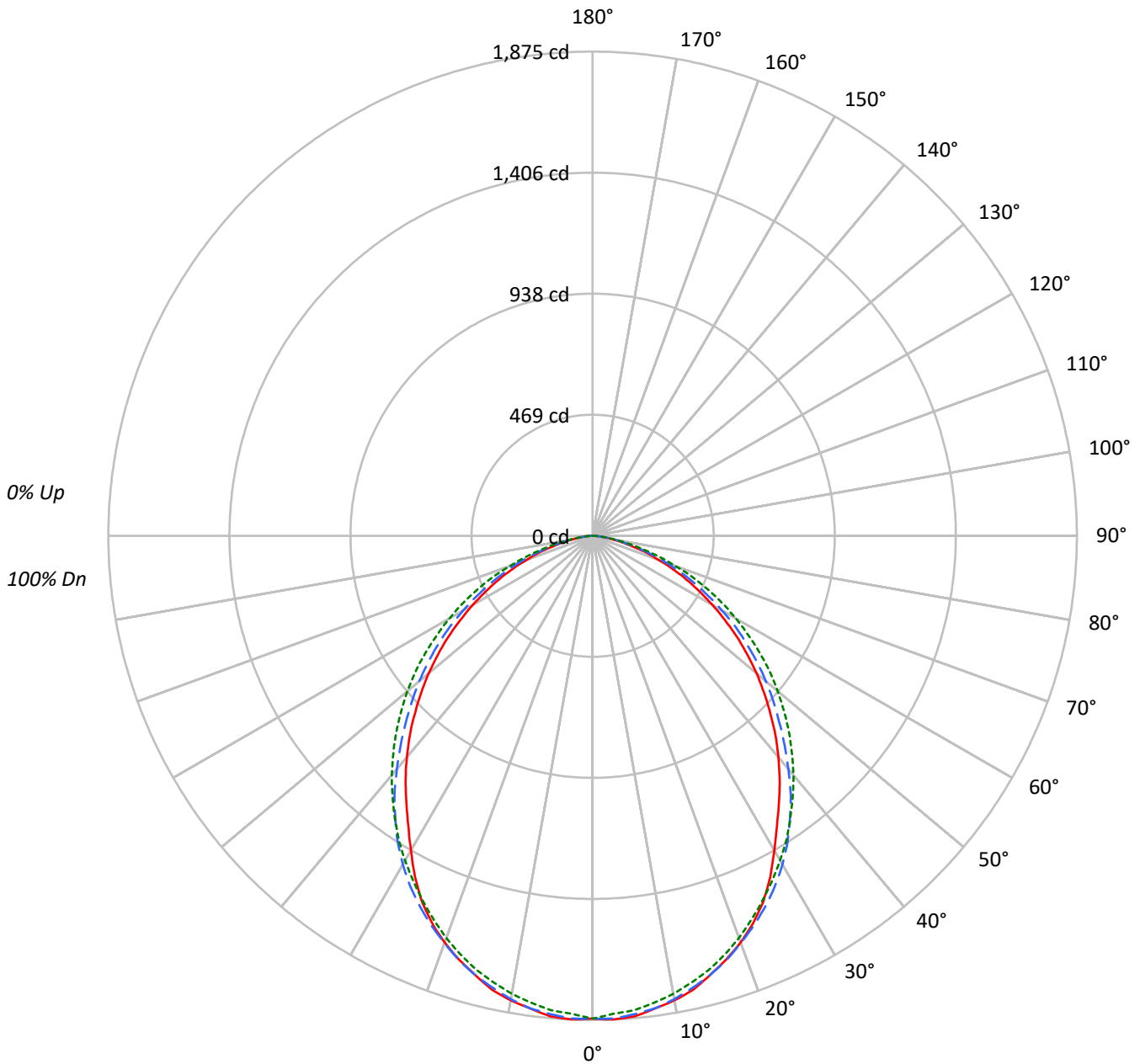
Lumens per Lamp: N/A
Luminaire Lumens: 4324.0 lumens
Efficiency: N/A
Efficacy: 92.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	5032	5032	5032
5°	5046	5024	4982
10°	4992	4978	4921
15°	4903	4903	4847
20°	4800	4806	4744
25°	4642	4699	4624
30°	4371	4567	4511
35°	4130	4378	4385
40°	3929	4141	4250
45°	3704	3890	4090
50°	3468	3666	3916
55°	3199	3411	3704
60°	2880	3112	3445
65°	2543	2767	3133
70°	2120	2357	2662
75°	1666	1882	2084
80°	1192	1325	1469
85°	775	775	732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.1	4.1
10°-20°	494.6	11.4
20°-30°	722.8	16.7
30°-40°	820.5	19.0
40°-50°	792.0	18.3
50°-60°	653.4	15.1
60°-70°	435.1	10.1
70°-80°	194.7	4.5
80°-90°	34.8	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°	1393.5	32.2
0°-40°	2214.0	51.2
0°-60°	3659.4	84.6
0°-90°	4324.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4324.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1870	1870	1870	1870	1870	
5°	1868	1867	1860	1850	1844	177
15°	1760	1764	1760	1752	1740	496
25°	1563	1576	1583	1571	1558	716
35°	1257	1274	1333	1340	1335	788
45°	973	990	1022	1069	1075	751
55°	682	693	727	767	790	609
65°	399	410	435	466	492	396
75°	160	169	181	190	200	175
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°	1870.0	1870.0	1870.0	1870.0	1870.0
2.5°	1875.0	1875.8	1871.5	1860.0	1852.8
5°	1867.9	1867.1	1860.0	1849.9	1844.2
7.5°	1847.0	1848.5	1846.3	1831.9	1824.0
10°	1826.9	1827.6	1821.9	1810.4	1801.1
12.5°	1801.1	1800.3	1792.4	1786.7	1771.6
15°	1760.1	1764.4	1760.1	1752.2	1740.0
17.5°	1720.6	1720.6	1723.5	1709.8	1700.5
20°	1676.0	1678.2	1678.2	1667.4	1656.7
22.5°	1624.3	1630.8	1632.9	1621.4	1608.5
25°	1563.3	1575.5	1582.7	1571.2	1557.5
27.5°	1489.3	1507.9	1529.5	1520.9	1505.8
30°	1406.6	1433.9	1469.9	1462.7	1451.9
32.5°	1328.3	1355.6	1405.2	1402.3	1396.6
35°	1257.2	1274.5	1332.6	1339.8	1334.8
37.5°	1189.7	1205.5	1260.1	1276.6	1272.3
40°	1118.6	1135.8	1178.9	1208.4	1209.8
42.5°	1048.2	1064.7	1099.9	1142.3	1142.3
45°	973.4	990.0	1022.3	1069.0	1074.7
47.5°	900.2	917.4	949.0	995.7	1005.1
50°	828.3	844.1	875.7	921.0	935.4
52.5°	753.6	770.9	801.7	843.4	864.2
55°	681.8	693.3	727.0	767.3	789.5
57.5°	607.1	617.8	655.9	690.4	713.4
60°	535.2	548.9	578.3	613.5	640.1
62.5°	466.2	480.6	505.8	536.7	566.8
65°	399.4	410.2	434.6	465.5	492.1
67.5°	334.8	344.1	368.5	390.1	418.1
70°	269.4	281.6	299.6	320.4	338.4
72.5°	217.0	222.0	237.1	252.2	270.8
75°	160.2	168.8	181.0	189.7	200.4
77.5°	114.9	120.0	127.2	134.3	144.4
80°	76.9	79.0	85.5	86.9	94.8
82.5°	46.7	48.1	49.6	50.3	53.2
85°	25.1	25.1	25.1	23.7	23.7
87.5°	14.4	14.4	12.2	10.1	7.2
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)