

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: P556323

Luminaire Tested: **FUSL-12-4-LD4-1HI-40-UNV-93-85-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: P556323
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-40-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

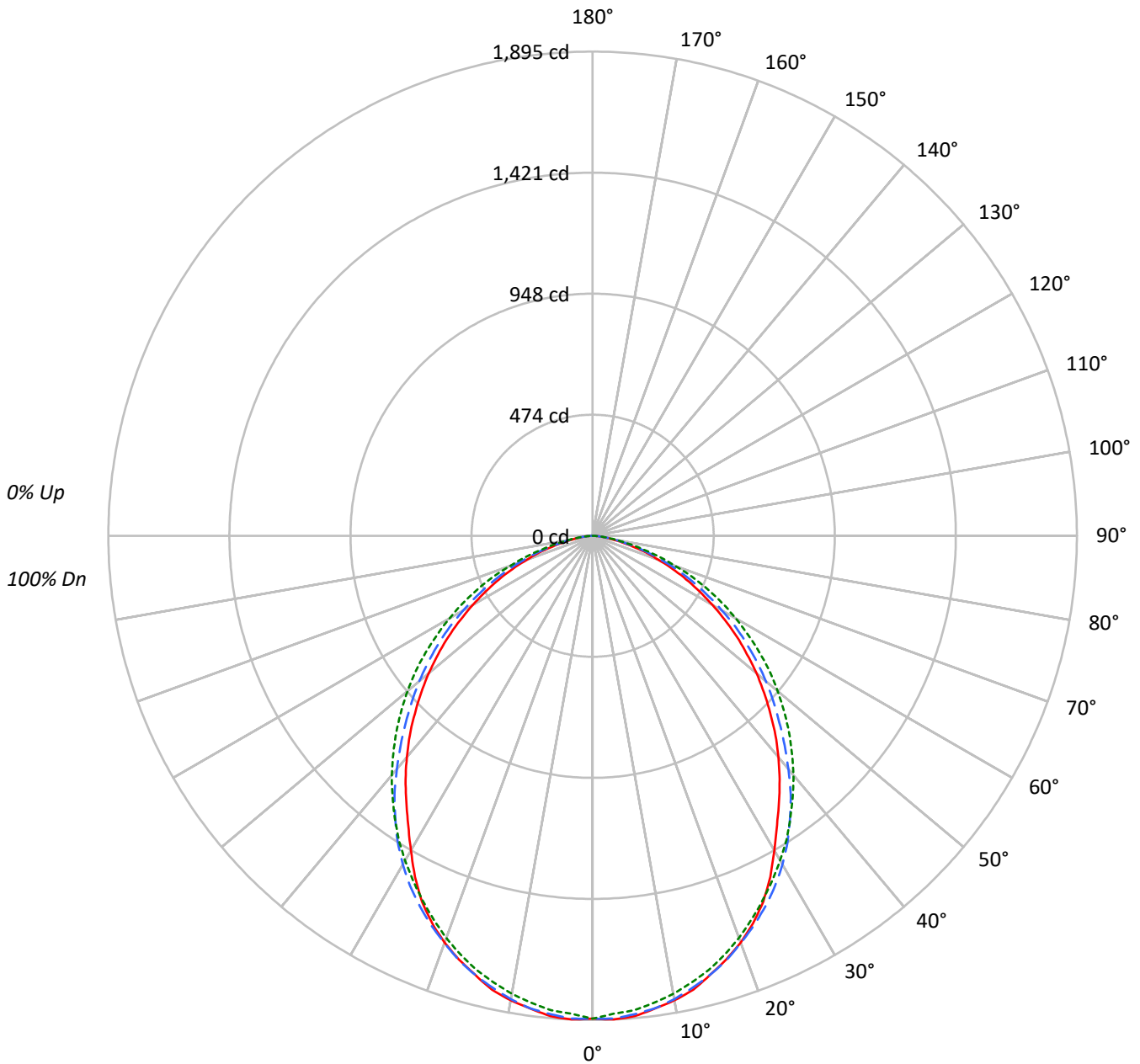
Lumens per Lamp: N/A
Luminaire Lumens: 4370.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	5086	5086	5086
5°	5099	5078	5035
10°	5045	5031	4974
15°	4956	4956	4899
20°	4851	4857	4795
25°	4691	4749	4674
30°	4417	4616	4560
35°	4174	4424	4432
40°	3971	4186	4295
45°	3744	3932	4134
50°	3504	3705	3957
55°	3232	3447	3743
60°	2911	3146	3482
65°	2571	2797	3167
70°	2142	2382	2691
75°	1683	1903	2106
80°	1204	1339	1485
85°	784	784	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.9	4.1
10°-20°	499.9	11.4
20°-30°	730.5	16.7
30°-40°	829.2	19.0
40°-50°	800.5	18.3
50°-60°	660.3	15.1
60°-70°	439.7	10.1
70°-80°	196.8	4.5
80°-90°	35.2	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°	1408.3	32.2
0°-40°	2237.5	51.2
0°-60°	3698.3	84.6
0°-90°	4370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4370.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1890	1890	1890	1890	1890	
5°	1888	1887	1880	1870	1864	179
15°	1779	1783	1779	1771	1758	501
25°	1580	1592	1600	1588	1574	724
35°	1271	1288	1347	1354	1349	796
45°	984	1000	1033	1080	1086	759
55°	689	701	735	775	798	615
65°	404	415	439	470	497	400
75°	162	171	183	192	203	177
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°	1889.9	1889.9	1889.9	1889.9	1889.9
2.5°	1895.0	1895.7	1891.4	1879.7	1872.5
5°	1887.7	1887.0	1879.7	1869.6	1863.8
7.5°	1866.7	1868.1	1866.0	1851.4	1843.4
10°	1846.3	1847.1	1841.3	1829.6	1820.2
12.5°	1820.2	1819.5	1811.5	1805.7	1790.4
15°	1778.8	1783.2	1778.8	1770.8	1758.5
17.5°	1738.9	1738.9	1741.8	1728.0	1718.6
20°	1693.9	1696.1	1696.1	1685.2	1674.3
22.5°	1641.6	1648.1	1650.3	1638.7	1625.6
25°	1579.9	1592.2	1599.5	1587.9	1574.1
27.5°	1505.1	1524.0	1545.8	1537.1	1521.8
30°	1421.6	1449.2	1485.5	1478.2	1467.4
32.5°	1342.5	1370.1	1420.2	1417.3	1411.4
35°	1270.6	1288.0	1346.8	1354.1	1349.0
37.5°	1202.3	1218.3	1273.5	1290.2	1285.8
40°	1130.5	1147.9	1191.5	1221.2	1222.7
42.5°	1059.3	1076.0	1111.6	1154.4	1154.4
45°	983.8	1000.5	1033.2	1080.4	1086.2
47.5°	909.7	927.2	959.1	1006.3	1015.7
50°	837.1	853.1	885.1	930.8	945.3
52.5°	761.6	779.1	810.3	852.4	873.4
55°	689.0	700.6	734.8	775.4	797.9
57.5°	613.5	624.4	662.9	697.7	721.0
60°	540.9	554.7	584.5	620.0	646.9
62.5°	471.2	485.7	511.1	542.4	572.9
65°	403.7	414.6	439.3	470.5	497.3
67.5°	338.3	347.8	372.5	394.2	422.6
70°	272.3	284.6	302.8	323.8	342.0
72.5°	219.3	224.3	239.6	254.8	273.7
75°	161.9	170.6	183.0	191.7	202.6
77.5°	116.2	121.3	128.5	135.8	145.9
80°	77.7	79.9	86.4	87.9	95.8
82.5°	47.2	48.6	50.1	50.8	53.7
85°	25.4	25.4	25.4	24.0	24.0
87.5°	14.5	14.5	12.3	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)