

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: P556247

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-UNV-82-87-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: P556247
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-82-87-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

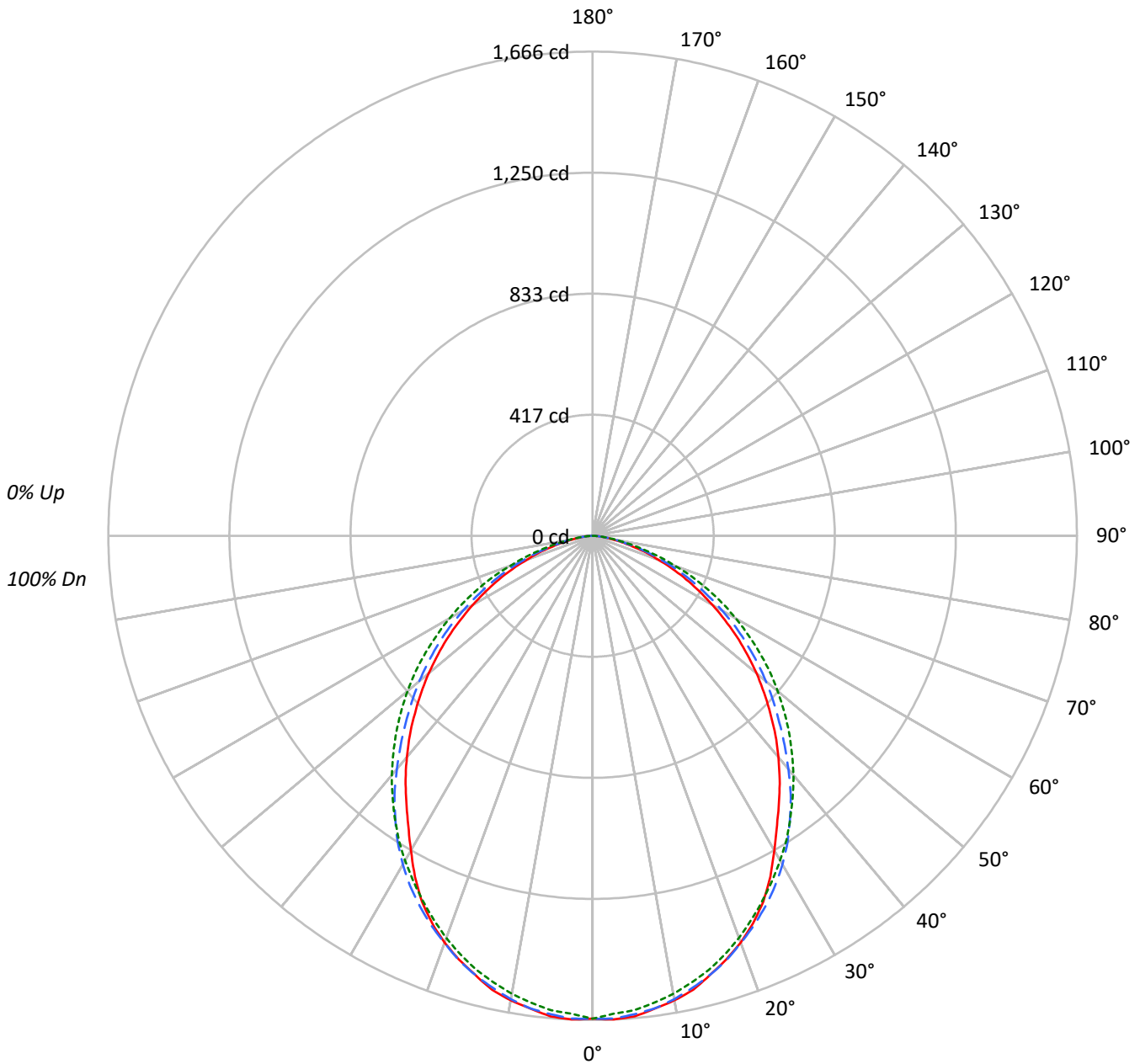
Lumens per Lamp: N/A
Luminaire Lumens: 3842.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P556247

CATALOG NUMBER: FUSL-12-4-LD4-1HI-35-UNV-82-87-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°	4471	4471	4471
5°	4483	4464	4426
10°	4436	4423	4373
15°	4357	4357	4307
20°	4265	4270	4215
25°	4124	4175	4109
30°	3883	4058	4009
35°	3670	3890	3896
40°	3491	3680	3776
45°	3291	3457	3634
50°	3081	3257	3479
55°	2842	3031	3291
60°	2560	2766	3061
65°	2260	2459	2784
70°	1884	2094	2366
75°	1480	1673	1852
80°	1058	1178	1306
85°	689	689	651



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.4	4.1
10°-20°	439.5	11.4
20°-30°	642.2	16.7
30°-40°	729.0	19.0
40°-50°	703.7	18.3
50°-60°	580.5	15.1
60°-70°	386.6	10.1
70°-80°	173.0	4.5
80°-90°	31.0	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°	1238.2	32.2
0°-40°	1967.2	51.2
0°-60°	3251.4	84.6
0°-90°	3842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1662	1662	1662	1662	1662	
5°	1660	1659	1653	1644	1639	157
15°	1564	1568	1564	1557	1546	441
25°	1389	1400	1406	1396	1384	636
35°	1117	1132	1184	1190	1186	700
45°	865	880	908	950	955	667
55°	606	616	646	682	702	541
65°	355	364	386	414	437	352
75°	142	150	161	168	178	156
85°	22	22	22	21	21	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1661.6	1661.6	1661.6	1661.6	1661.6
2.5°	1666.0	1666.7	1662.8	1652.6	1646.2
5°	1659.7	1659.0	1652.6	1643.7	1638.6
7.5°	1641.1	1642.4	1640.5	1627.7	1620.7
10°	1623.3	1623.9	1618.8	1608.6	1600.3
12.5°	1600.3	1599.6	1592.6	1587.5	1574.1
15°	1563.9	1567.7	1563.9	1556.9	1546.0
17.5°	1528.8	1528.8	1531.3	1519.2	1510.9
20°	1489.2	1491.1	1491.1	1481.6	1472.0
22.5°	1443.3	1449.0	1450.9	1440.7	1429.2
25°	1389.0	1399.9	1406.2	1396.0	1383.9
27.5°	1323.3	1339.8	1359.0	1351.3	1337.9
30°	1249.8	1274.1	1306.0	1299.6	1290.1
32.5°	1180.3	1204.5	1248.6	1246.0	1240.9
35°	1117.1	1132.4	1184.1	1190.5	1186.0
37.5°	1057.1	1071.1	1119.6	1134.3	1130.5
40°	993.9	1009.2	1047.5	1073.7	1074.9
42.5°	931.3	946.0	977.3	1014.9	1014.9
45°	864.9	879.6	908.3	949.8	954.9
47.5°	799.8	815.1	843.2	884.7	893.0
50°	736.0	750.0	778.1	818.3	831.1
52.5°	669.6	684.9	712.4	749.4	767.9
55°	605.8	616.0	646.0	681.7	701.5
57.5°	539.4	549.0	582.8	613.4	633.9
60°	475.6	487.7	513.9	545.1	568.7
62.5°	414.3	427.0	449.4	476.8	503.6
65°	354.9	364.5	386.2	413.6	437.3
67.5°	297.5	305.8	327.5	346.6	371.5
70°	239.4	250.2	266.2	284.7	300.7
72.5°	192.8	197.2	210.6	224.1	240.6
75°	142.3	150.0	160.9	168.5	178.1
77.5°	102.1	106.6	113.0	119.4	128.3
80°	68.3	70.2	76.0	77.2	84.3
82.5°	41.5	42.8	44.0	44.7	47.2
85°	22.3	22.3	22.3	21.1	21.1
87.5°	12.8	12.8	10.9	8.9	6.4
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)