

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: P556146

Luminaire Tested: **FUSL-12-4-LD4-1HI-30-UNV-80-85-EDD-90**

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: P556146
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-30-UNV-80-85-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

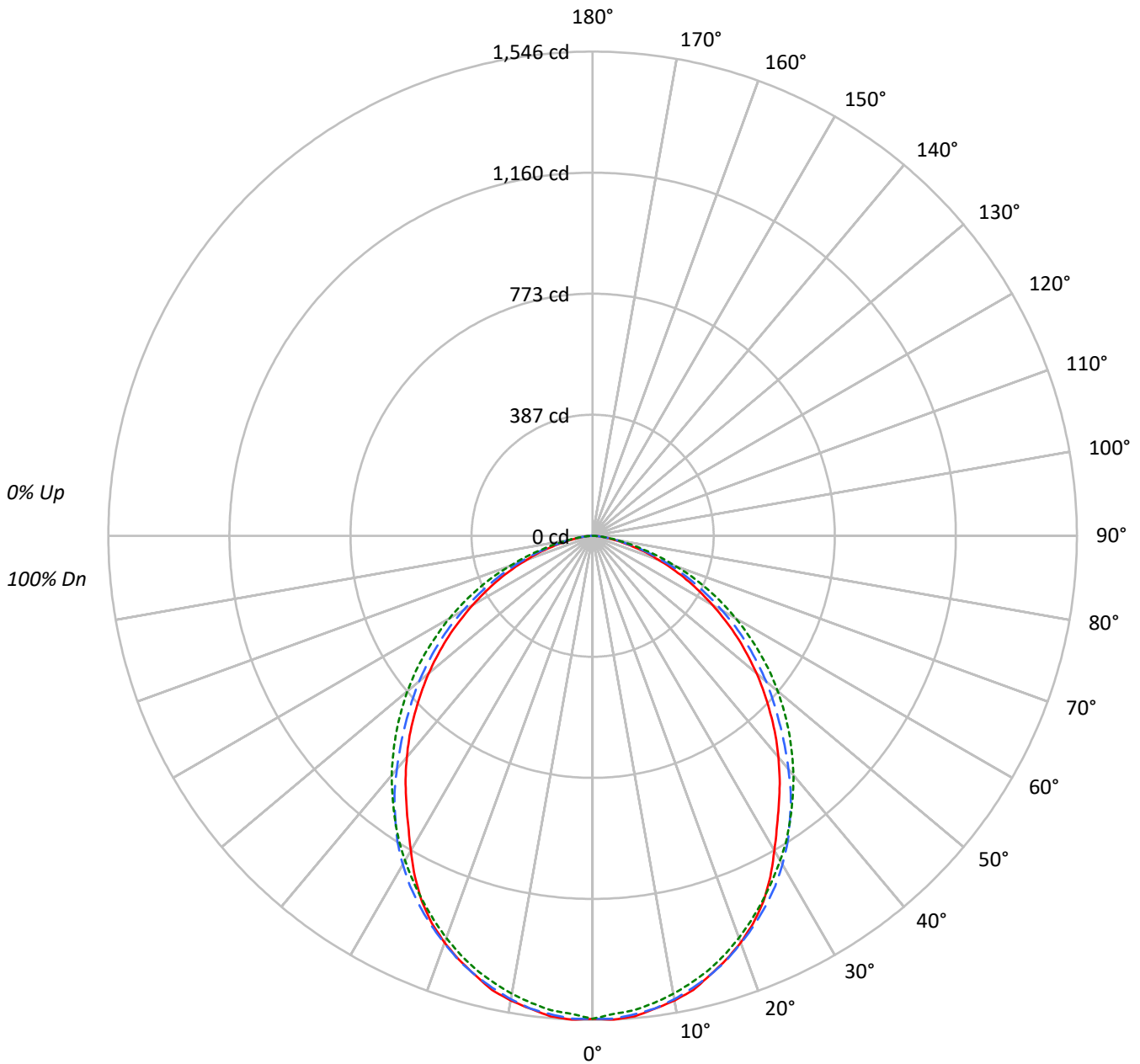
Lumens per Lamp: N/A
Luminaire Lumens: 3566.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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					20					
RC	80					70					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°	4150	4150	4150
5°	4161	4143	4108
10°	4117	4106	4059
15°	4044	4044	3998
20°	3958	3963	3912
25°	3828	3875	3814
30°	3605	3767	3721
35°	3406	3610	3616
40°	3241	3415	3505
45°	3055	3209	3373
50°	2860	3023	3229
55°	2638	2813	3055
60°	2376	2567	2841
65°	2097	2282	2584
70°	1748	1944	2196
75°	1373	1552	1719
80°	982	1093	1212
85°	639	639	605



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	4.1
10°-20°	407.9	11.4
20°-30°	596.1	16.7
30°-40°	676.6	19.0
40°-50°	653.2	18.3
50°-60°	538.8	15.1
60°-70°	358.8	10.1
70°-80°	160.6	4.5
80°-90°	28.7	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°	1149.2	32.2
0°-40°	1825.9	51.2
0°-60°	3017.9	84.6
0°-90°	3566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1540	1540	1534	1526	1521	146
15°	1452	1455	1452	1445	1435	409
25°	1289	1299	1305	1296	1284	590
35°	1037	1051	1099	1105	1101	650
45°	803	816	843	882	886	619
55°	562	572	600	633	651	502
65°	329	338	358	384	406	327
75°	132	139	149	156	165	144
85°	21	21	21	20	20	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1542.2	1542.2	1542.2	1542.2	1542.2
2.5°	1546.4	1546.9	1543.4	1533.9	1528.0
5°	1540.4	1539.8	1533.9	1525.6	1520.9
7.5°	1523.2	1524.4	1522.7	1510.8	1504.3
10°	1506.7	1507.2	1502.5	1493.0	1485.3
12.5°	1485.3	1484.7	1478.2	1473.5	1461.0
15°	1451.6	1455.1	1451.6	1445.0	1435.0
17.5°	1419.0	1419.0	1421.3	1410.1	1402.4
20°	1382.2	1384.0	1384.0	1375.1	1366.2
22.5°	1339.6	1344.9	1346.7	1337.2	1326.5
25°	1289.2	1299.3	1305.2	1295.7	1284.5
27.5°	1228.2	1243.6	1261.4	1254.3	1241.8
30°	1160.1	1182.6	1212.2	1206.3	1197.4
32.5°	1095.5	1118.0	1158.9	1156.5	1151.8
35°	1036.8	1051.0	1099.0	1105.0	1100.8
37.5°	981.1	994.2	1039.2	1052.8	1049.3
40°	922.5	936.7	972.2	996.5	997.7
42.5°	864.4	878.0	907.1	942.0	942.0
45°	802.8	816.4	843.1	881.6	886.3
47.5°	742.4	756.6	782.7	821.2	828.9
50°	683.1	696.2	722.2	759.5	771.4
52.5°	621.5	635.7	661.2	695.6	712.7
55°	562.3	571.7	599.6	632.8	651.1
57.5°	500.6	509.5	540.9	569.4	588.3
60°	441.4	452.6	476.9	506.0	527.9
62.5°	384.5	396.4	417.1	442.6	467.5
65°	329.4	338.3	358.4	383.9	405.8
67.5°	276.1	283.8	303.9	321.7	344.8
70°	222.2	232.2	247.1	264.2	279.1
72.5°	178.9	183.1	195.5	208.0	223.4
75°	132.1	139.2	149.3	156.4	165.3
77.5°	94.8	98.9	104.9	110.8	119.1
80°	63.4	65.2	70.5	71.7	78.2
82.5°	38.5	39.7	40.9	41.5	43.8
85°	20.7	20.7	20.7	19.6	19.6
87.5°	11.8	11.8	10.1	8.3	5.9
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)