

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: P556657

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-84-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: P556657
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-LD4-1STD-30-UNV-80-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

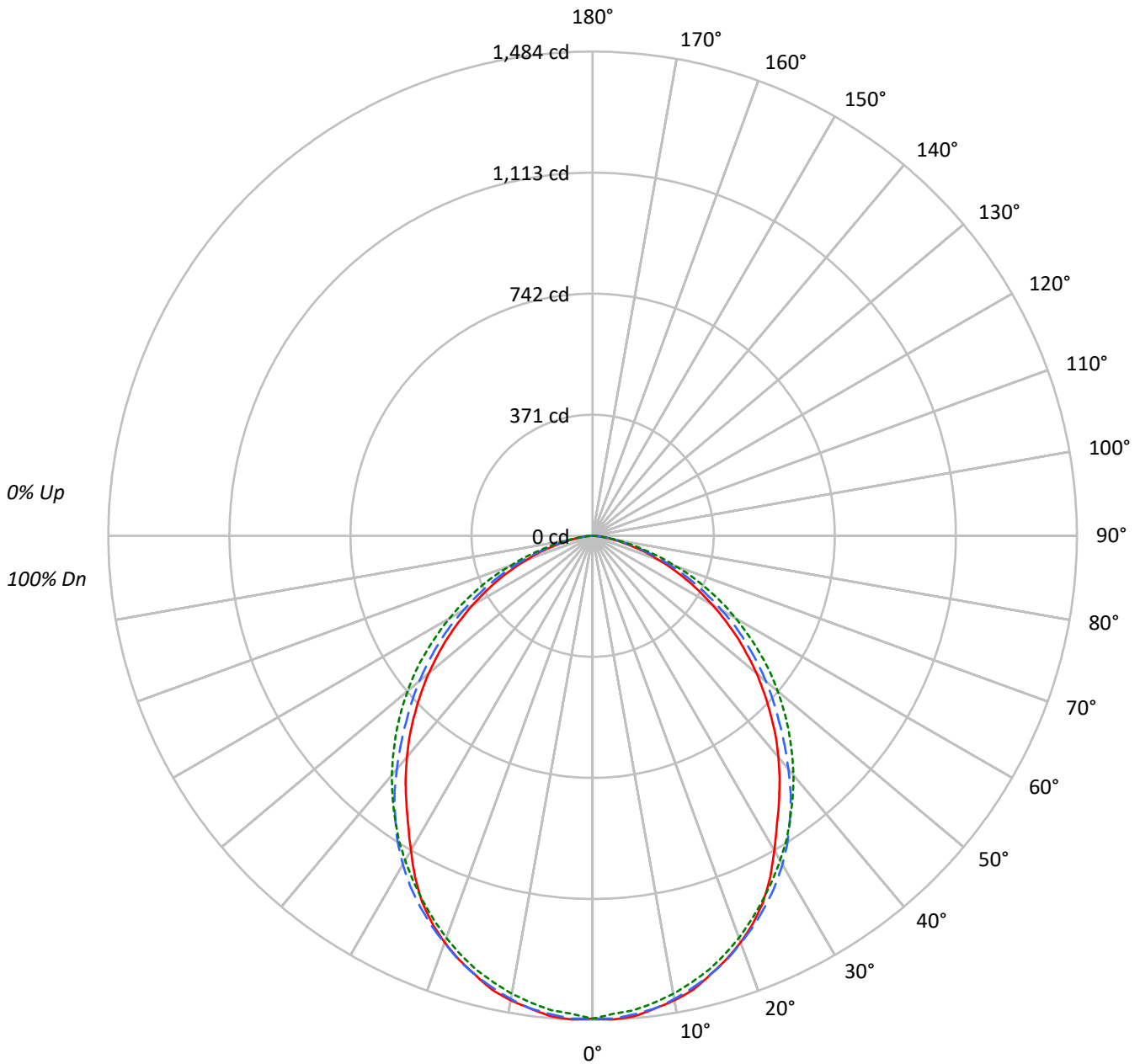
Lumens per Lamp: N/A
Luminaire Lumens: 3422.0 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3982	3982	3982
5°	3993	3976	3942
10°	3951	3940	3895
15°	3880	3880	3836
20°	3798	3803	3755
25°	3673	3719	3660
30°	3459	3614	3570
35°	3269	3465	3470
40°	3110	3277	3363
45°	2932	3079	3237
50°	2744	2902	3099
55°	2532	2700	2931
60°	2280	2463	2726
65°	2013	2190	2480
70°	1677	1865	2107
75°	1318	1490	1649
80°	942	1049	1162
85°	614	614	580



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.3	4.1
10°-20°	391.4	11.4
20°-30°	572.0	16.7
30°-40°	649.3	19.0
40°-50°	626.8	18.3
50°-60°	517.1	15.1
60°-70°	344.3	10.1
70°-80°	154.1	4.5
80°-90°	27.6	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°	1102.8	32.2
0°-40°	1752.1	51.2
0°-60°	2896.0	84.6
0°-90°	3422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3422.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1480	1480	1480	1480	1480	
5°	1478	1478	1472	1464	1460	140
15°	1393	1396	1393	1387	1377	393
25°	1237	1247	1252	1243	1233	567
35°	995	1009	1055	1060	1056	623
45°	770	784	809	846	850	594
55°	540	549	575	607	625	482
65°	316	325	344	368	390	313
75°	127	134	143	150	159	139
85°	20	20	20	19	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1479.9	1479.9	1479.9	1479.9	1479.9
2.5°	1483.9	1484.5	1481.1	1472.0	1466.3
5°	1478.2	1477.7	1472.0	1464.0	1459.5
7.5°	1461.7	1462.9	1461.2	1449.8	1443.5
10°	1445.8	1446.4	1441.8	1432.7	1425.3
12.5°	1425.3	1424.8	1418.5	1414.0	1402.0
15°	1392.9	1396.4	1392.9	1386.7	1377.0
17.5°	1361.7	1361.7	1363.9	1353.1	1345.7
20°	1326.4	1328.1	1328.1	1319.6	1311.1
22.5°	1285.5	1290.6	1292.3	1283.2	1273.0
25°	1237.2	1246.8	1252.5	1243.4	1232.6
27.5°	1178.6	1193.4	1210.4	1203.6	1191.7
30°	1113.2	1134.8	1163.2	1157.6	1149.0
32.5°	1051.2	1072.8	1112.1	1109.8	1105.3
35°	995.0	1008.6	1054.7	1060.3	1056.4
37.5°	941.5	954.0	997.2	1010.3	1006.9
40°	885.2	898.9	933.0	956.3	957.4
42.5°	829.5	842.6	870.4	904.0	904.0
45°	770.4	783.5	809.0	846.0	850.5
47.5°	712.4	726.0	751.0	788.0	795.4
50°	655.5	668.0	693.1	728.9	740.2
52.5°	596.4	610.1	634.5	667.5	684.0
55°	539.6	548.6	575.4	607.2	624.8
57.5°	480.4	489.0	519.1	546.4	564.6
60°	423.6	434.4	457.7	485.5	506.6
62.5°	369.0	380.4	400.3	424.7	448.6
65°	316.1	324.6	344.0	368.4	389.5
67.5°	264.9	272.3	291.7	308.7	330.9
70°	213.2	222.9	237.1	253.6	267.8
72.5°	171.7	175.7	187.6	199.6	214.3
75°	126.8	133.6	143.3	150.1	158.6
77.5°	91.0	94.9	100.6	106.3	114.3
80°	60.8	62.5	67.7	68.8	75.0
82.5°	37.0	38.1	39.2	39.8	42.1
85°	19.9	19.9	19.9	18.8	18.8
87.5°	11.4	11.4	9.7	8.0	5.7
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)