

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: P556210

Luminaire Tested: **FUSL-12-4-LD4-1HI-35-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: P556210
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

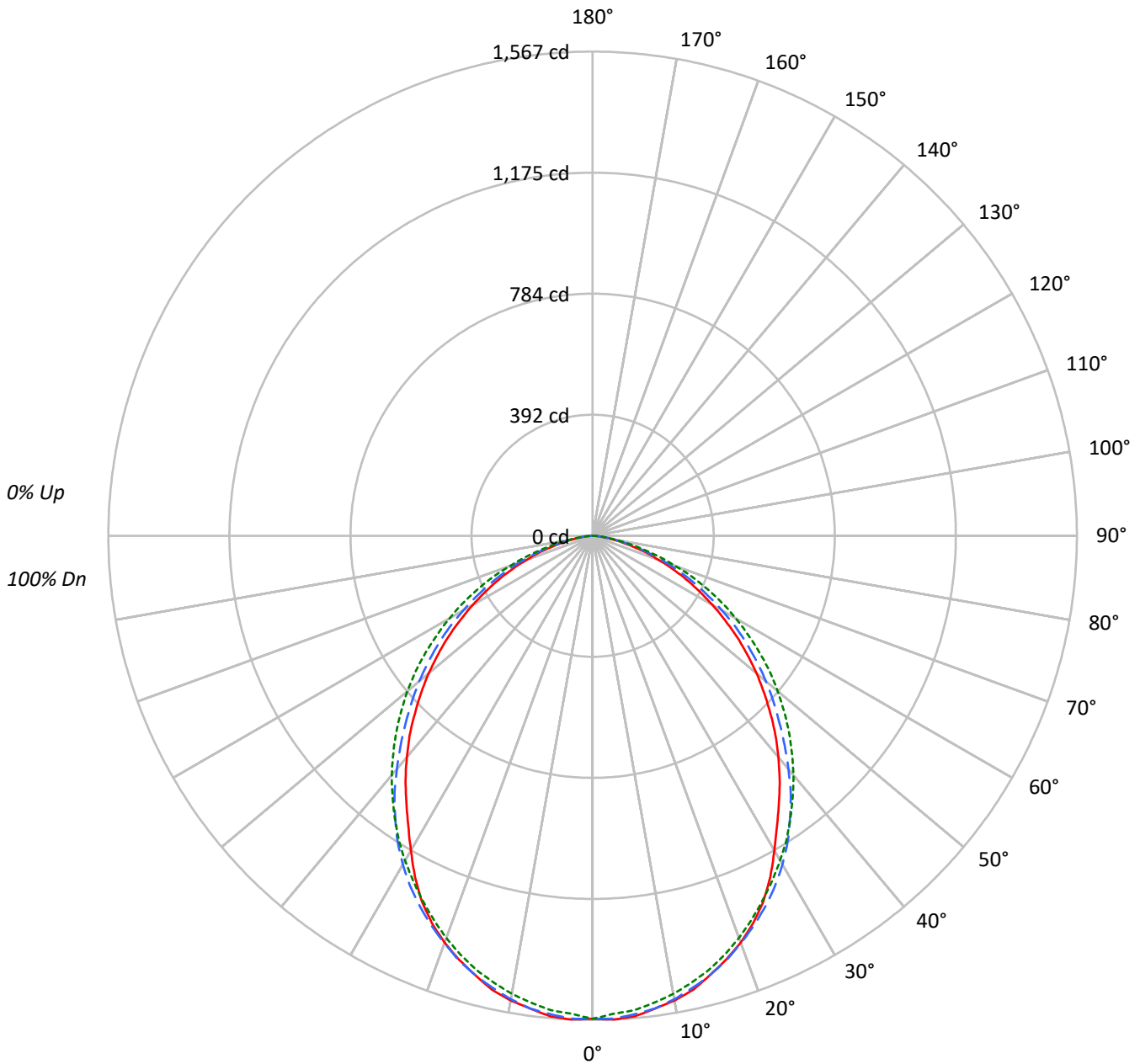
Lumens per Lamp: N/A
Luminaire Lumens: 3614.0 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	4206	4206	4206
5°	4217	4199	4163
10°	4172	4161	4113
15°	4098	4098	4052
20°	4011	4017	3965
25°	3880	3928	3865
30°	3653	3817	3771
35°	3452	3659	3665
40°	3284	3461	3552
45°	3096	3252	3419
50°	2898	3064	3273
55°	2673	2851	3096
60°	2407	2602	2879
65°	2125	2313	2619
70°	1772	1970	2225
75°	1392	1573	1742
80°	995	1108	1229
85°	648	648	611



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.2	4.1
10°-20°	413.4	11.4
20°-30°	604.1	16.7
30°-40°	685.7	19.0
40°-50°	662.0	18.3
50°-60°	546.1	15.1
60°-70°	363.7	10.1
70°-80°	162.7	4.5
80°-90°	29.1	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°	1164.7	32.2
0°-40°	1850.4	51.2
0°-60°	3058.5	84.6
0°-90°	3614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3614.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1561	1561	1555	1546	1541	148
15°	1471	1475	1471	1464	1454	415
25°	1307	1317	1323	1313	1302	598
35°	1051	1065	1114	1120	1116	658
45°	814	827	854	894	898	628
55°	570	579	608	641	660	509
65°	334	343	363	389	411	331
75°	134	141	151	158	168	146
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°	1563.0	1563.0	1563.0	1563.0	1563.0
2.5°	1567.2	1567.8	1564.2	1554.6	1548.6
5°	1561.2	1560.6	1554.6	1546.1	1541.3
7.5°	1543.7	1544.9	1543.1	1531.1	1524.5
10°	1526.9	1527.5	1522.7	1513.1	1505.3
12.5°	1505.3	1504.7	1498.1	1493.3	1480.7
15°	1471.1	1474.7	1471.1	1464.5	1454.3
17.5°	1438.1	1438.1	1440.5	1429.1	1421.3
20°	1400.8	1402.6	1402.6	1393.6	1384.6
22.5°	1357.6	1363.0	1364.8	1355.2	1344.4
25°	1306.6	1316.8	1322.8	1313.2	1301.8
27.5°	1244.7	1260.3	1278.4	1271.1	1258.5
30°	1175.7	1198.5	1228.5	1222.5	1213.5
32.5°	1110.2	1133.0	1174.5	1172.1	1167.3
35°	1050.8	1065.2	1113.8	1119.8	1115.6
37.5°	994.3	1007.5	1053.2	1067.0	1063.4
40°	934.9	949.3	985.3	1010.0	1011.2
42.5°	876.1	889.9	919.3	954.7	954.7
45°	813.6	827.4	854.4	893.5	898.3
47.5°	752.4	766.8	793.2	832.2	840.0
50°	692.3	705.5	731.9	769.8	781.8
52.5°	629.9	644.3	670.1	704.9	722.3
55°	569.8	579.4	607.7	641.3	659.9
57.5°	507.4	516.4	548.2	577.0	596.2
60°	447.3	458.7	483.4	512.8	535.0
62.5°	389.7	401.7	422.7	448.5	473.8
65°	333.8	342.9	363.3	389.1	411.3
67.5°	279.8	287.6	308.0	326.0	349.5
70°	225.2	235.4	250.4	267.8	282.8
72.5°	181.3	185.5	198.1	210.8	226.4
75°	133.9	141.1	151.3	158.5	167.5
77.5°	96.1	100.3	106.3	112.3	120.7
80°	64.2	66.0	71.5	72.7	79.3
82.5°	39.0	40.2	41.4	42.0	44.4
85°	21.0	21.0	21.0	19.8	19.8
87.5°	12.0	12.0	10.2	8.4	6.0
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)