

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: P556961

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-93-84-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: P556961
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-LD4-2HI-30-UNV-93-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS 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

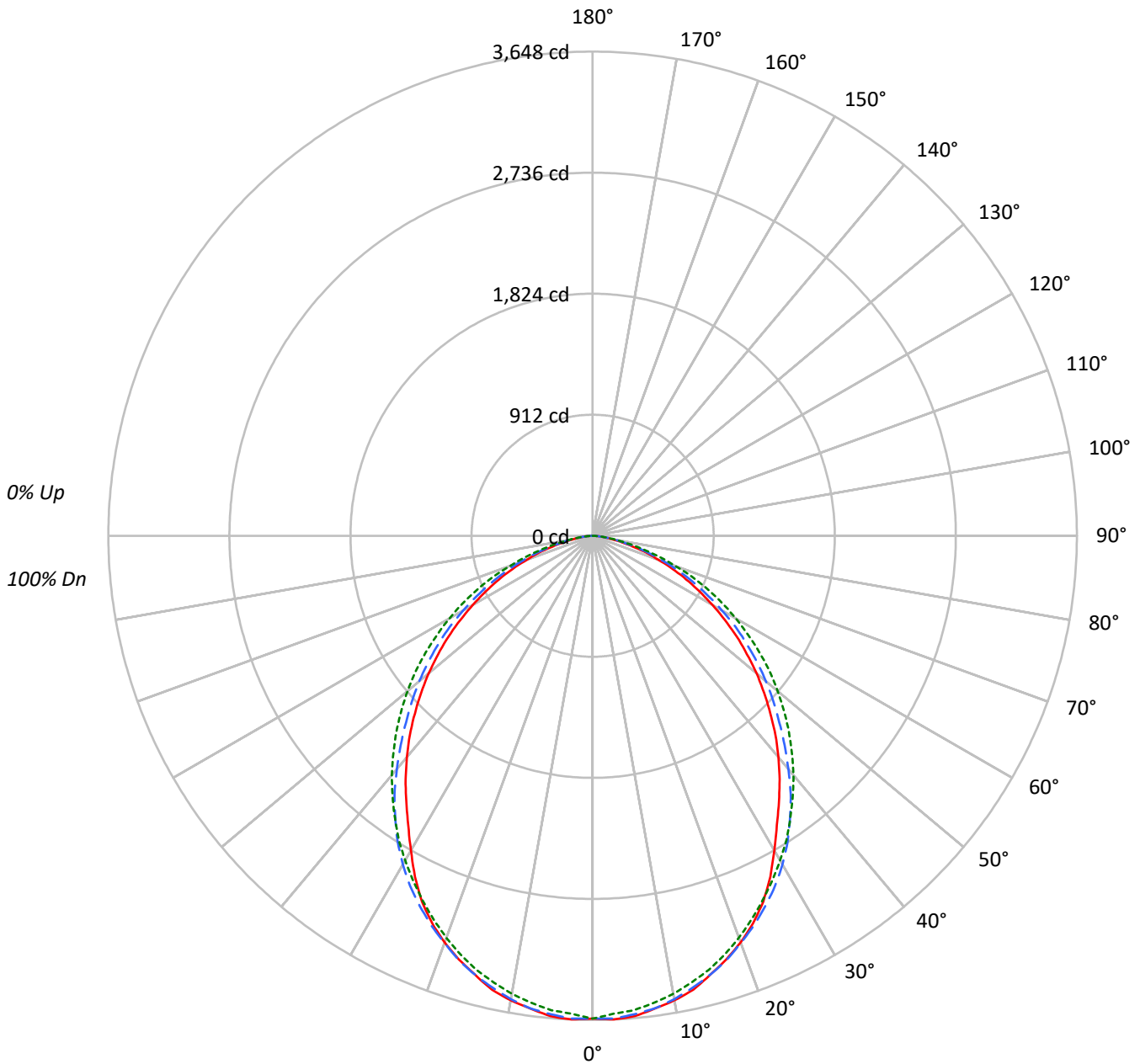
Lumens per Lamp: N/A
Luminaire Lumens: 8412.0 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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°	9790	9790	9790
5°	9816	9774	9691
10°	9712	9685	9574
15°	9539	9539	9430
20°	9337	9349	9229
25°	9030	9142	8997
30°	8503	8885	8777
35°	8035	8517	8531
40°	7644	8057	8268
45°	7207	7569	7957
50°	6746	7132	7618
55°	6222	6636	7206
60°	5604	6055	6702
65°	4948	5384	6096
70°	4124	4585	5179
75°	3241	3662	4054
80°	2317	2577	2859
85°	1510	1510	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.5	4.1
10°-20°	962.3	11.4
20°-30°	1406.2	16.7
30°-40°	1596.2	19.0
40°-50°	1540.8	18.3
50°-60°	1271.1	15.1
60°-70°	846.4	10.1
70°-80°	378.8	4.5
80°-90°	67.8	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°	2710.9	32.2
0°-40°	4307.1	51.2
0°-60°	7119.0	84.6
0°-90°	8412.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8412.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3638	3638	3638	3638	3638	
5°	3634	3632	3618	3599	3588	344
15°	3424	3432	3424	3409	3385	965
25°	3041	3065	3079	3057	3030	1393
35°	2446	2479	2593	2606	2597	1532
45°	1894	1926	1989	2080	2091	1461
55°	1326	1349	1414	1493	1536	1184
65°	777	798	846	906	957	771
75°	312	328	352	369	390	341
85°	49	49	49	46	46	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3638.0	3638.0	3638.0	3638.0	3638.0
2.5°	3647.8	3649.2	3640.8	3618.4	3604.4
5°	3633.8	3632.4	3618.4	3598.8	3587.7
7.5°	3593.2	3596.0	3591.9	3563.9	3548.5
10°	3554.1	3555.5	3544.3	3522.0	3503.8
12.5°	3503.8	3502.4	3487.0	3475.9	3446.5
15°	3424.1	3432.5	3424.1	3408.8	3385.0
17.5°	3347.3	3347.3	3352.9	3326.3	3308.1
20°	3260.6	3264.8	3264.8	3243.8	3222.9
22.5°	3160.0	3172.6	3176.8	3154.4	3129.2
25°	3041.2	3065.0	3078.9	3056.6	3030.0
27.5°	2897.2	2933.6	2975.5	2958.7	2929.4
30°	2736.5	2789.6	2859.5	2845.5	2824.6
32.5°	2584.2	2637.3	2733.7	2728.1	2716.9
35°	2445.8	2479.4	2592.6	2606.5	2596.8
37.5°	2314.4	2345.2	2451.4	2483.5	2475.2
40°	2176.1	2209.6	2293.5	2350.8	2353.6
42.5°	2039.1	2071.3	2139.7	2222.2	2222.2
45°	1893.8	1925.9	1988.8	2079.6	2090.8
47.5°	1751.2	1784.7	1846.2	1937.1	1955.3
50°	1611.4	1642.2	1703.7	1791.7	1819.7
52.5°	1466.1	1499.6	1559.7	1640.8	1681.3
55°	1326.3	1348.7	1414.4	1492.6	1536.0
57.5°	1181.0	1201.9	1276.0	1343.1	1387.8
60°	1041.2	1067.8	1125.1	1193.6	1245.3
62.5°	907.0	935.0	983.9	1044.0	1102.7
65°	777.1	798.0	845.6	905.6	957.4
67.5°	651.3	669.5	717.0	758.9	813.4
70°	524.1	547.9	582.8	623.3	658.3
72.5°	422.1	431.9	461.2	490.6	526.9
75°	311.7	328.4	352.2	369.0	389.9
77.5°	223.6	233.4	247.4	261.4	280.9
80°	149.5	153.7	166.3	169.1	184.5
82.5°	90.8	93.6	96.4	97.8	103.4
85°	48.9	48.9	48.9	46.1	46.1
87.5°	28.0	28.0	23.8	19.6	14.0
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)