

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: P557737

Luminaire Tested: **FUSL-12-4-LD4-3HI-30-UNV-93-88-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: P557737
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-LD4-3HI-30-UNV-93-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

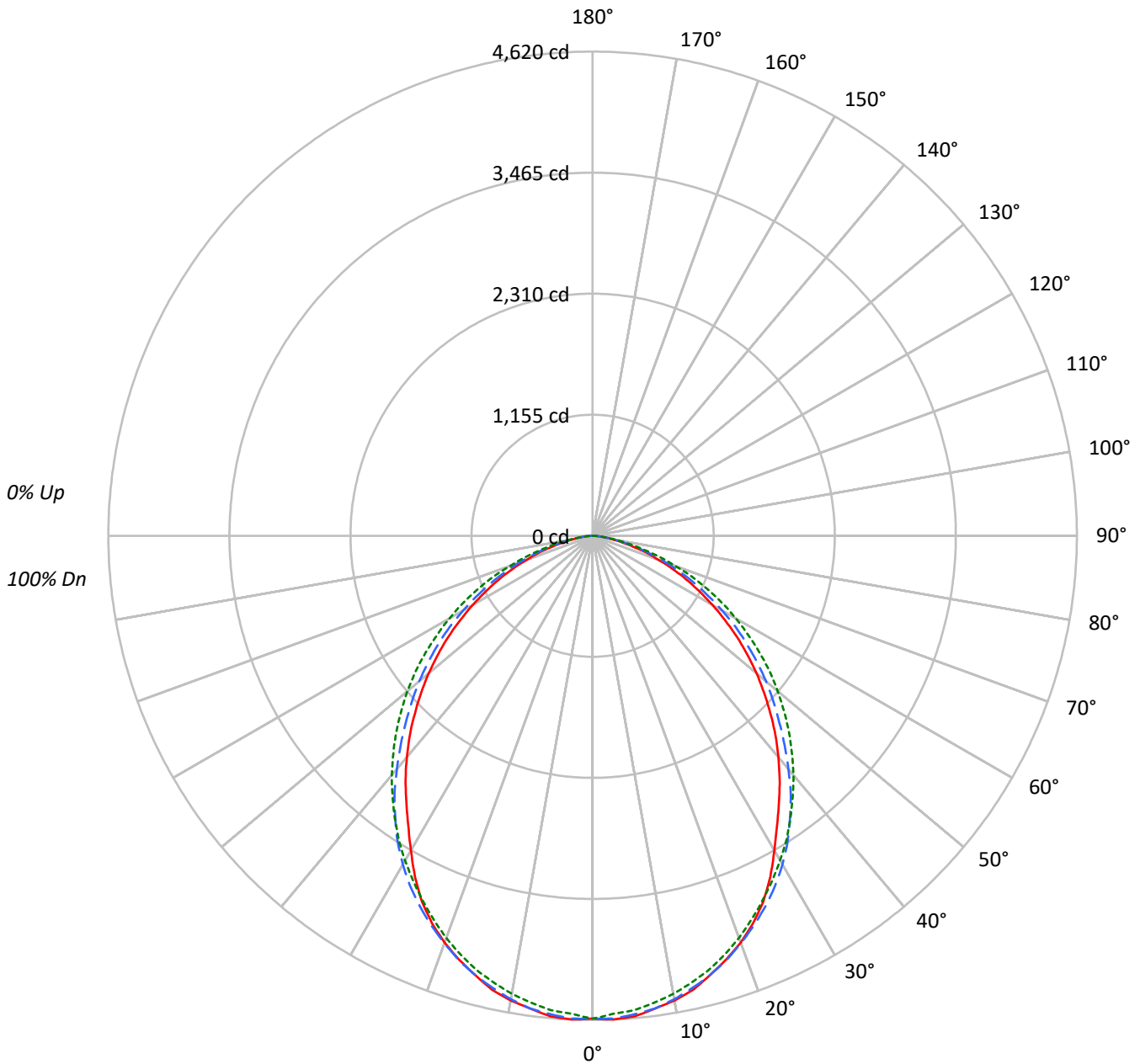
Lumens per Lamp: N/A
Luminaire Lumens: 10655.0 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
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°	12400	12400	12400
5°	12433	12380	12275
10°	12301	12267	12127
15°	12083	12083	11945
20°	11827	11842	11690
25°	11438	11579	11395
30°	10770	11255	11117
35°	10177	10788	10805
40°	9682	10205	10472
45°	9129	9587	10078
50°	8545	9034	9649
55°	7882	8405	9127
60°	7098	7670	8489
65°	6267	6819	7721
70°	5223	5808	6560
75°	4105	4638	5135
80°	2935	3265	3622
85°	1914	1914	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.9	4.1
10°-20°	1218.8	11.4
20°-30°	1781.1	16.7
30°-40°	2021.8	19.0
40°-50°	1951.7	18.3
50°-60°	1610.0	15.1
60°-70°	1072.1	10.1
70°-80°	479.8	4.5
80°-90°	85.8	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°	3433.8	32.2
0°-40°	5455.6	51.2
0°-60°	9017.3	84.6
0°-90°	10655.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10655.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4608	4608	4608	4608	4608	
5°	4603	4601	4583	4558	4544	436
15°	4337	4348	4337	4318	4288	1223
25°	3852	3882	3900	3872	3838	1764
35°	3098	3140	3284	3302	3289	1941
45°	2399	2439	2519	2634	2648	1851
55°	1680	1708	1792	1891	1946	1499
65°	984	1011	1071	1147	1213	976
75°	395	416	446	467	494	432
85°	62	62	62	58	58	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4608.0	4608.0	4608.0	4608.0	4608.0
2.5°	4620.4	4622.2	4611.6	4583.2	4565.5
5°	4602.7	4600.9	4583.2	4558.4	4544.3
7.5°	4551.4	4554.9	4549.6	4514.2	4494.7
10°	4501.8	4503.6	4489.4	4461.1	4438.1
12.5°	4438.1	4436.3	4416.8	4402.7	4365.5
15°	4337.2	4347.8	4337.2	4317.7	4287.6
17.5°	4239.8	4239.8	4246.9	4213.2	4190.2
20°	4130.0	4135.4	4135.4	4108.8	4082.2
22.5°	4002.6	4018.5	4023.8	3995.5	3963.6
25°	3852.1	3882.2	3899.9	3871.6	3837.9
27.5°	3669.8	3715.8	3768.9	3747.7	3710.5
30°	3466.2	3533.5	3622.0	3604.3	3577.7
32.5°	3273.2	3340.5	3462.6	3455.6	3441.4
35°	3098.0	3140.5	3283.9	3301.6	3289.2
37.5°	2931.6	2970.5	3105.1	3145.8	3135.1
40°	2756.3	2798.8	2905.0	2977.6	2981.1
42.5°	2582.8	2623.5	2710.3	2814.7	2814.7
45°	2398.7	2439.4	2519.1	2634.2	2648.3
47.5°	2218.1	2260.6	2338.5	2453.6	2476.6
50°	2041.1	2080.1	2158.0	2269.5	2304.9
52.5°	1857.0	1899.5	1975.6	2078.3	2129.6
55°	1680.0	1708.3	1791.5	1890.6	1945.5
57.5°	1495.9	1522.4	1616.3	1701.2	1757.9
60°	1318.9	1352.5	1425.1	1511.8	1577.3
62.5°	1148.9	1184.3	1246.3	1322.4	1396.7
65°	984.3	1010.8	1071.0	1147.1	1212.6
67.5°	824.9	848.0	908.1	961.3	1030.3
70°	663.9	693.9	738.2	789.5	833.8
72.5°	534.6	547.0	584.2	621.4	667.4
75°	394.8	416.0	446.1	467.4	493.9
77.5°	283.2	295.6	313.3	331.0	355.8
80°	189.4	194.7	210.7	214.2	233.7
82.5°	115.1	118.6	122.1	123.9	131.0
85°	62.0	62.0	62.0	58.4	58.4
87.5°	35.4	35.4	30.1	24.8	17.7
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)