

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: P556941

Luminaire Tested: **FUSL-12-4-LD4-2HI-30-UNV-81-96-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: P556941
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-81-96-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

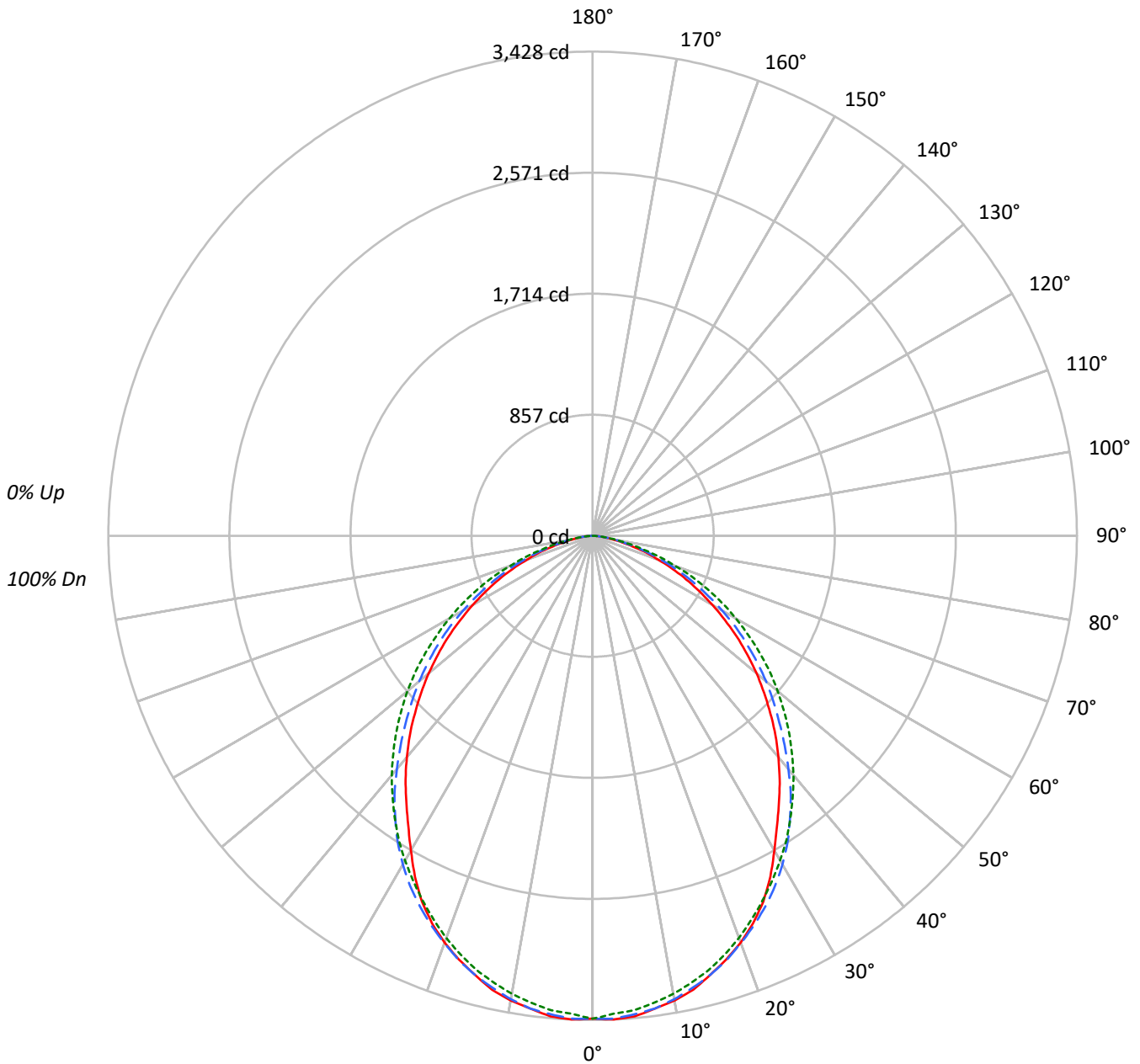
Lumens per Lamp: N/A
Luminaire Lumens: 7906.0 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	9201	9201	9201
5°	9225	9186	9108
10°	9127	9102	8998
15°	8966	8966	8863
20°	8776	8787	8674
25°	8487	8592	8456
30°	7992	8351	8249
35°	7551	8004	8018
40°	7184	7572	7770
45°	6773	7113	7478
50°	6340	6703	7160
55°	5848	6237	6773
60°	5267	5691	6299
65°	4650	5060	5729
70°	3876	4309	4868
75°	3045	3441	3811
80°	2177	2422	2687
85°	1420	1420	1337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	321.9	4.1
10°-20°	904.4	11.4
20°-30°	1321.6	16.7
30°-40°	1500.1	19.0
40°-50°	1448.2	18.3
50°-60°	1194.6	15.1
60°-70°	795.5	10.1
70°-80°	356.0	4.5
80°-90°	63.7	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°	2547.9	32.2
0°-40°	4048.0	51.2
0°-60°	6690.8	84.6
0°-90°	7906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3419	3419	3419	3419	3419	
5°	3415	3414	3401	3382	3372	323
15°	3218	3226	3218	3204	3181	907
25°	2858	2881	2894	2873	2848	1309
35°	2299	2330	2437	2450	2441	1440
45°	1780	1810	1869	1954	1965	1373
55°	1246	1268	1329	1403	1444	1113
65°	730	750	795	851	900	724
75°	293	309	331	347	366	320
85°	46	46	46	43	43	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3419.1	3419.1	3419.1	3419.1	3419.1
2.5°	3428.3	3429.6	3421.8	3400.8	3387.6
5°	3415.2	3413.9	3400.8	3382.4	3371.9
7.5°	3377.1	3379.7	3375.8	3349.5	3335.1
10°	3340.3	3341.6	3331.1	3310.1	3293.0
12.5°	3293.0	3291.7	3277.3	3266.8	3239.2
15°	3218.2	3226.1	3218.2	3203.7	3181.4
17.5°	3145.9	3145.9	3151.2	3126.2	3109.1
20°	3064.5	3068.4	3068.4	3048.7	3029.0
22.5°	2969.9	2981.7	2985.7	2964.7	2941.0
25°	2858.3	2880.6	2893.7	2872.7	2847.8
27.5°	2723.0	2757.1	2796.5	2780.8	2753.2
30°	2571.9	2621.8	2687.5	2674.4	2654.7
32.5°	2428.7	2478.6	2569.3	2564.0	2553.5
35°	2298.7	2330.2	2436.6	2449.7	2440.6
37.5°	2175.2	2204.1	2303.9	2334.2	2326.3
40°	2045.2	2076.7	2155.5	2209.4	2212.0
42.5°	1916.5	1946.7	2011.0	2088.5	2088.5
45°	1779.8	1810.1	1869.2	1954.5	1965.1
47.5°	1645.9	1677.4	1735.2	1820.6	1837.6
50°	1514.5	1543.4	1601.2	1684.0	1710.2
52.5°	1377.9	1409.4	1465.9	1542.1	1580.2
55°	1246.5	1267.6	1329.3	1402.9	1443.6
57.5°	1109.9	1129.6	1199.3	1262.3	1304.3
60°	978.6	1003.5	1057.4	1121.8	1170.4
62.5°	852.5	878.8	924.7	981.2	1036.4
65°	730.3	750.0	794.7	851.2	899.8
67.5°	612.1	629.2	673.8	713.3	764.5
70°	492.6	514.9	547.7	585.8	618.7
72.5°	396.7	405.9	433.5	461.1	495.2
75°	292.9	308.7	331.0	346.8	366.5
77.5°	210.2	219.4	232.5	245.6	264.0
80°	140.5	144.5	156.3	158.9	173.4
82.5°	85.4	88.0	90.6	91.9	97.2
85°	46.0	46.0	46.0	43.3	43.3
87.5°	26.3	26.3	22.3	18.4	13.1
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)