

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: P556978

Luminaire Tested: **FUSL-12-4-LD4-2HI-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: P556978
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-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

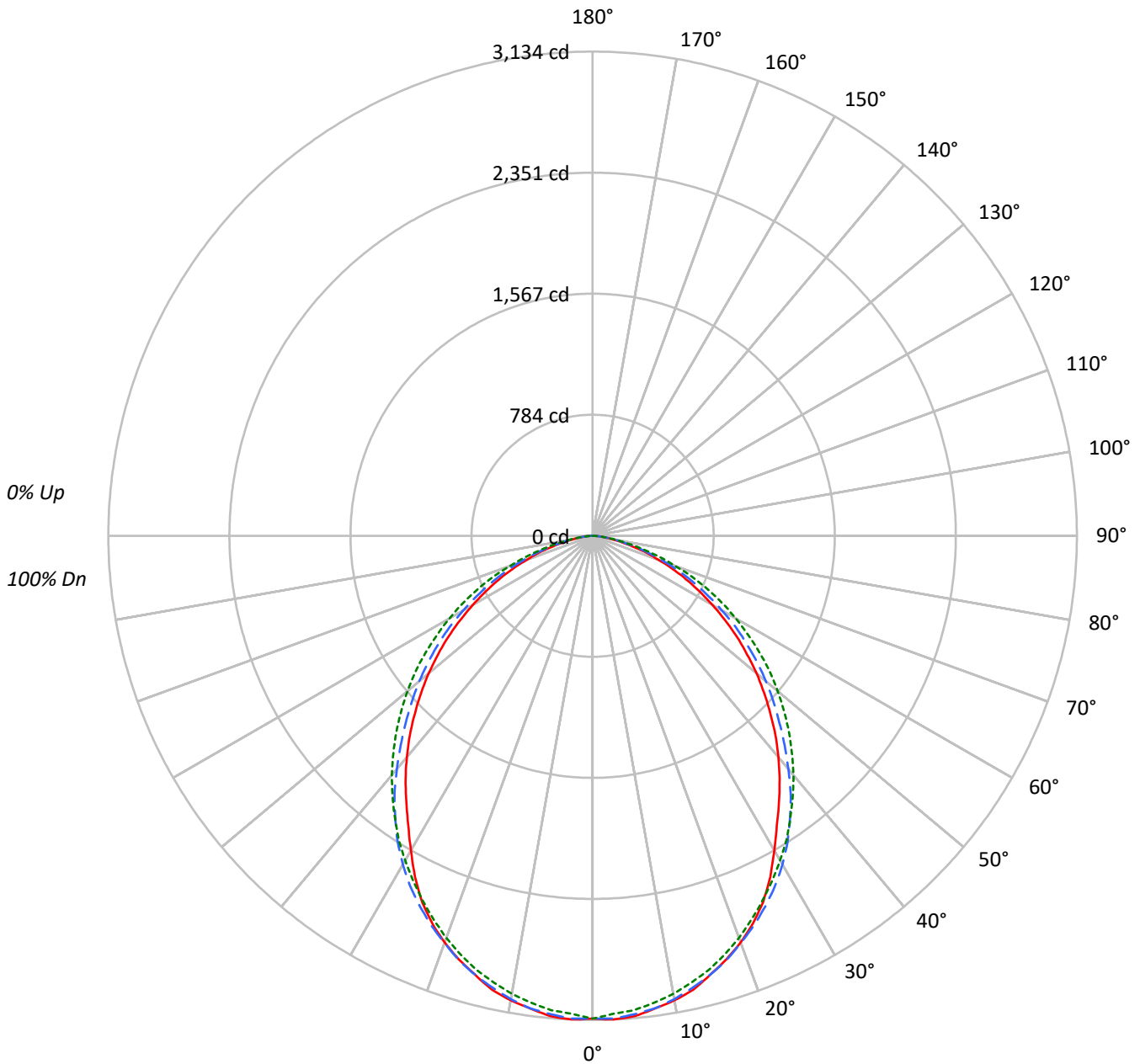
Lumens per Lamp: N/A
Luminaire Lumens: 7227.0 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
Input Voltage (V): NR
Input Current (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°	8411	8411	8411
5°	8433	8397	8326
10°	8343	8320	8225
15°	8196	8196	8102
20°	8022	8032	7929
25°	7758	7854	7729
30°	7305	7634	7540
35°	6903	7317	7329
40°	6567	6922	7103
45°	6192	6502	6836
50°	5796	6128	6545
55°	5346	5701	6191
60°	4814	5202	5758
65°	4251	4625	5237
70°	3543	3939	4449
75°	2784	3146	3483
80°	1991	2214	2456
85°	1297	1297	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.3	4.1
10°-20°	826.7	11.4
20°-30°	1208.1	16.7
30°-40°	1371.3	19.0
40°-50°	1323.8	18.3
50°-60°	1092.0	15.1
60°-70°	727.2	10.1
70°-80°	325.4	4.5
80°-90°	58.2	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°	2329.0	32.2
0°-40°	3700.3	51.2
0°-60°	6116.2	84.6
0°-90°	7227.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7227.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3126	3126	3126	3126	3126	
5°	3122	3121	3109	3092	3082	295
15°	2942	2949	2942	2929	2908	829
25°	2613	2633	2645	2626	2603	1197
35°	2101	2130	2227	2239	2231	1317
45°	1627	1655	1709	1787	1796	1255
55°	1140	1159	1215	1282	1320	1017
65°	668	686	726	778	822	662
75°	268	282	303	317	335	293
85°	42	42	42	40	40	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3125.5	3125.5	3125.5	3125.5	3125.5
2.5°	3133.9	3135.1	3127.9	3108.7	3096.7
5°	3121.9	3120.7	3108.7	3091.9	3082.3
7.5°	3087.1	3089.5	3085.9	3061.9	3048.6
10°	3053.4	3054.6	3045.0	3025.8	3010.2
12.5°	3010.2	3009.0	2995.8	2986.2	2961.0
15°	2941.8	2949.0	2941.8	2928.6	2908.2
17.5°	2875.7	2875.7	2880.5	2857.7	2842.1
20°	2801.3	2804.9	2804.9	2786.9	2768.9
22.5°	2714.8	2725.6	2729.3	2710.0	2688.4
25°	2612.8	2633.2	2645.2	2626.0	2603.2
27.5°	2489.1	2520.3	2556.3	2541.9	2516.7
30°	2351.0	2396.6	2456.7	2444.7	2426.7
32.5°	2220.1	2265.8	2348.6	2343.8	2334.2
35°	2101.3	2130.1	2227.3	2239.4	2230.9
37.5°	1988.4	2014.8	2106.1	2133.7	2126.5
40°	1869.5	1898.3	1970.4	2019.6	2022.0
42.5°	1751.9	1779.5	1838.3	1909.2	1909.2
45°	1627.0	1654.6	1708.6	1786.7	1796.3
47.5°	1504.5	1533.3	1586.2	1664.2	1679.8
50°	1384.4	1410.9	1463.7	1539.3	1563.3
52.5°	1259.6	1288.4	1340.0	1409.7	1444.5
55°	1139.5	1158.7	1215.1	1282.4	1319.6
57.5°	1014.6	1032.6	1096.3	1153.9	1192.3
60°	894.5	917.4	966.6	1025.4	1069.8
62.5°	779.3	803.3	845.3	896.9	947.4
65°	667.6	685.6	726.4	778.1	822.5
67.5°	559.5	575.1	616.0	652.0	698.8
70°	450.3	470.7	500.7	535.5	565.5
72.5°	362.6	371.0	396.2	421.5	452.7
75°	267.8	282.2	302.6	317.0	335.0
77.5°	192.1	200.5	212.5	224.5	241.3
80°	128.5	132.1	142.9	145.3	158.5
82.5°	78.0	80.4	82.9	84.1	88.9
85°	42.0	42.0	42.0	39.6	39.6
87.5°	24.0	24.0	20.4	16.8	12.0
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)