

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: P556790

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-87-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: P556790
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-LD4-1STD-40-UNV-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

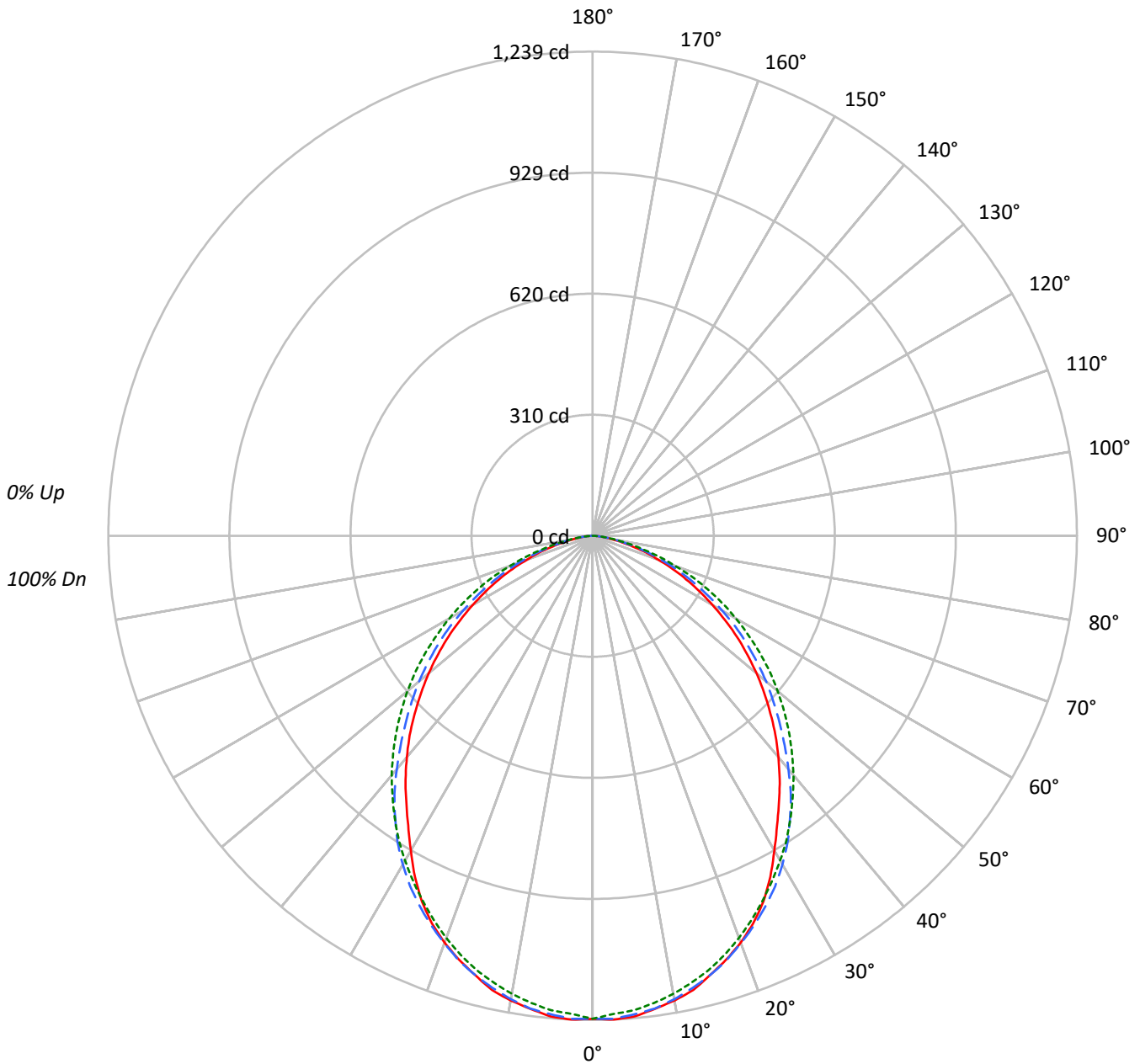
Lumens per Lamp: N/A
Luminaire Lumens: 2858.0 lumens
Efficiency: N/A
Efficacy: 85.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	3326	3326	3326
5°	3335	3321	3293
10°	3299	3290	3253
15°	3241	3241	3204
20°	3172	3176	3136
25°	3068	3106	3057
30°	2889	3019	2982
35°	2730	2893	2898
40°	2597	2737	2809
45°	2449	2571	2704
50°	2292	2423	2588
55°	2114	2254	2449
60°	1904	2057	2277
65°	1681	1829	2071
70°	1401	1558	1760
75°	1101	1245	1378
80°	787	876	972
85°	513	513	485



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.4	4.1
10°-20°	326.9	11.4
20°-30°	477.7	16.7
30°-40°	542.3	19.0
40°-50°	523.5	18.3
50°-60°	431.8	15.1
60°-70°	287.6	10.1
70°-80°	128.7	4.5
80°-90°	23.0	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°	921.0	32.2
0°-40°	1463.3	51.2
0°-60°	2418.7	84.6
0°-90°	2858.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2858.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1236	1236	1236	1236	1236	
5°	1235	1234	1229	1223	1219	117
15°	1163	1166	1163	1158	1150	328
25°	1033	1041	1046	1038	1030	473
35°	831	842	881	886	882	521
45°	643	654	676	707	710	496
55°	451	458	480	507	522	402
65°	264	271	287	308	325	262
75°	106	112	120	125	132	116
85°	17	17	17	16	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1236.0	1236.0	1236.0	1236.0	1236.0
2.5°	1239.3	1239.8	1237.0	1229.4	1224.6
5°	1234.6	1234.1	1229.4	1222.7	1218.9
7.5°	1220.8	1221.8	1220.3	1210.8	1205.6
10°	1207.5	1208.0	1204.2	1196.6	1190.4
12.5°	1190.4	1190.0	1184.7	1180.9	1171.0
15°	1163.4	1166.2	1163.4	1158.1	1150.1
17.5°	1137.2	1137.2	1139.1	1130.1	1123.9
20°	1107.8	1109.2	1109.2	1102.1	1095.0
22.5°	1073.6	1077.9	1079.3	1071.7	1063.2
25°	1033.3	1041.3	1046.1	1038.5	1029.5
27.5°	984.3	996.7	1010.9	1005.2	995.3
30°	929.7	947.8	971.5	966.8	959.7
32.5°	878.0	896.0	928.8	926.9	923.1
35°	831.0	842.4	880.8	885.6	882.3
37.5°	786.3	796.8	832.9	843.8	840.9
40°	739.3	750.7	779.2	798.7	799.6
42.5°	692.8	703.7	727.0	755.0	755.0
45°	643.4	654.3	675.7	706.6	710.4
47.5°	595.0	606.4	627.3	658.1	664.3
50°	547.5	557.9	578.8	608.7	618.2
52.5°	498.1	509.5	529.9	557.5	571.2
55°	450.6	458.2	480.5	507.1	521.9
57.5°	401.2	408.4	433.5	456.3	471.5
60°	353.8	362.8	382.2	405.5	423.1
62.5°	308.2	317.7	334.3	354.7	374.6
65°	264.0	271.1	287.3	307.7	325.3
67.5°	221.3	227.4	243.6	257.8	276.4
70°	178.1	186.1	198.0	211.8	223.7
72.5°	143.4	146.7	156.7	166.7	179.0
75°	105.9	111.6	119.7	125.4	132.5
77.5°	76.0	79.3	84.0	88.8	95.4
80°	50.8	52.2	56.5	57.5	62.7
82.5°	30.9	31.8	32.8	33.2	35.1
85°	16.6	16.6	16.6	15.7	15.7
87.5°	9.5	9.5	8.1	6.6	4.7
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)