

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: P556868

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-81-86-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: P556868
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-50-UNV-81-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

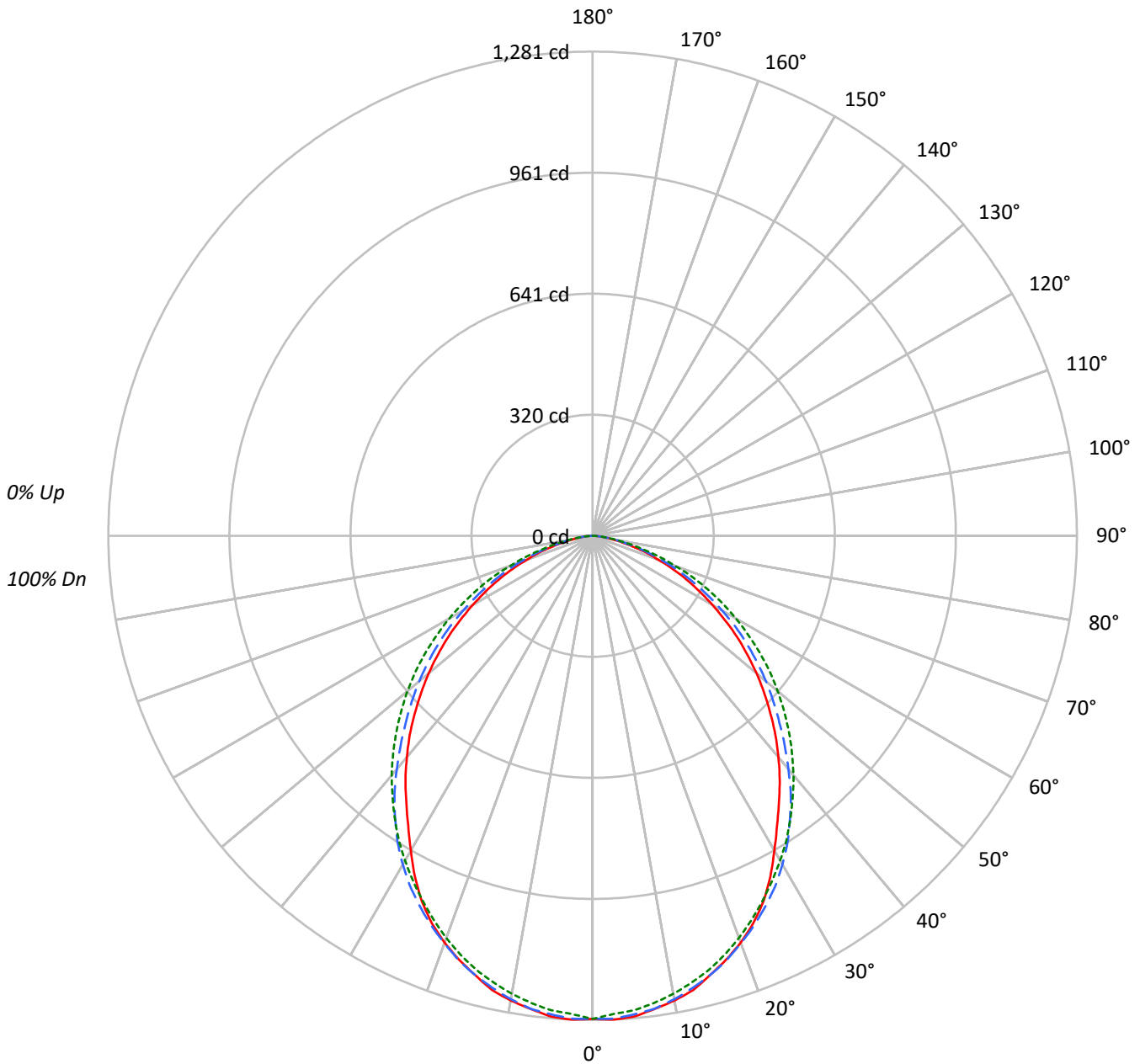
Lumens per Lamp: N/A
Luminaire Lumens: 2955.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3439	3439	3439
5°	3448	3434	3404
10°	3412	3402	3363
15°	3351	3351	3313
20°	3280	3284	3242
25°	3172	3211	3160
30°	2987	3121	3083
35°	2823	2992	2997
40°	2685	2830	2904
45°	2531	2659	2795
50°	2370	2506	2676
55°	2186	2331	2532
60°	1969	2127	2354
65°	1738	1891	2141
70°	1448	1611	1819
75°	1138	1286	1424
80°	814	905	1004
85°	531	531	500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	4.1
10°-20°	338.0	11.4
20°-30°	494.0	16.7
30°-40°	560.7	19.0
40°-50°	541.3	18.3
50°-60°	446.5	15.1
60°-70°	297.3	10.1
70°-80°	133.1	4.5
80°-90°	23.8	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°	952.3	32.2
0°-40°	1513.0	51.2
0°-60°	2500.8	84.6
0°-90°	2955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2955.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1276	1276	1271	1264	1260	121
15°	1203	1206	1203	1197	1189	339
25°	1068	1077	1082	1074	1064	489
35°	859	871	911	916	912	538
45°	665	676	699	730	734	513
55°	466	474	497	524	540	416
65°	273	280	297	318	336	271
75°	110	115	124	130	137	120
85°	17	17	17	16	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1278.0	1278.0	1278.0	1278.0	1278.0
2.5°	1281.4	1281.9	1278.9	1271.1	1266.2
5°	1276.5	1276.0	1271.1	1264.2	1260.3
7.5°	1262.3	1263.2	1261.8	1251.9	1246.5
10°	1248.5	1249.0	1245.1	1237.2	1230.8
12.5°	1230.8	1230.3	1224.9	1221.0	1210.7
15°	1202.8	1205.8	1202.8	1197.4	1189.1
17.5°	1175.8	1175.8	1177.8	1168.5	1162.1
20°	1145.4	1146.9	1146.9	1139.5	1132.1
22.5°	1110.1	1114.5	1115.9	1108.1	1099.3
25°	1068.3	1076.7	1081.6	1073.7	1064.4
27.5°	1017.8	1030.5	1045.2	1039.4	1029.0
30°	961.3	980.0	1004.5	999.6	992.2
32.5°	907.8	926.4	960.3	958.3	954.4
35°	859.2	871.0	910.7	915.6	912.2
37.5°	813.0	823.8	861.1	872.4	869.5
40°	764.4	776.2	805.7	825.8	826.8
42.5°	716.3	727.6	751.7	780.6	780.6
45°	665.2	676.5	698.6	730.5	734.5
47.5°	615.2	627.0	648.6	680.5	686.8
50°	566.1	576.9	598.5	629.4	639.2
52.5°	515.0	526.8	547.9	576.4	590.6
55°	465.9	473.8	496.8	524.3	539.6
57.5°	414.9	422.2	448.2	471.8	487.5
60°	365.8	375.1	395.2	419.3	437.4
62.5°	318.6	328.5	345.6	366.7	387.4
65°	273.0	280.3	297.0	318.1	336.3
67.5°	228.8	235.2	251.9	266.6	285.7
70°	184.1	192.5	204.7	219.0	231.2
72.5°	148.3	151.7	162.0	172.3	185.1
75°	109.5	115.4	123.7	129.6	137.0
77.5°	78.6	82.0	86.9	91.8	98.7
80°	52.5	54.0	58.4	59.4	64.8
82.5°	31.9	32.9	33.9	34.4	36.3
85°	17.2	17.2	17.2	16.2	16.2
87.5°	9.8	9.8	8.3	6.9	4.9
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)