

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: P556672

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-81-84-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: P556672
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-30-UNV-81-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

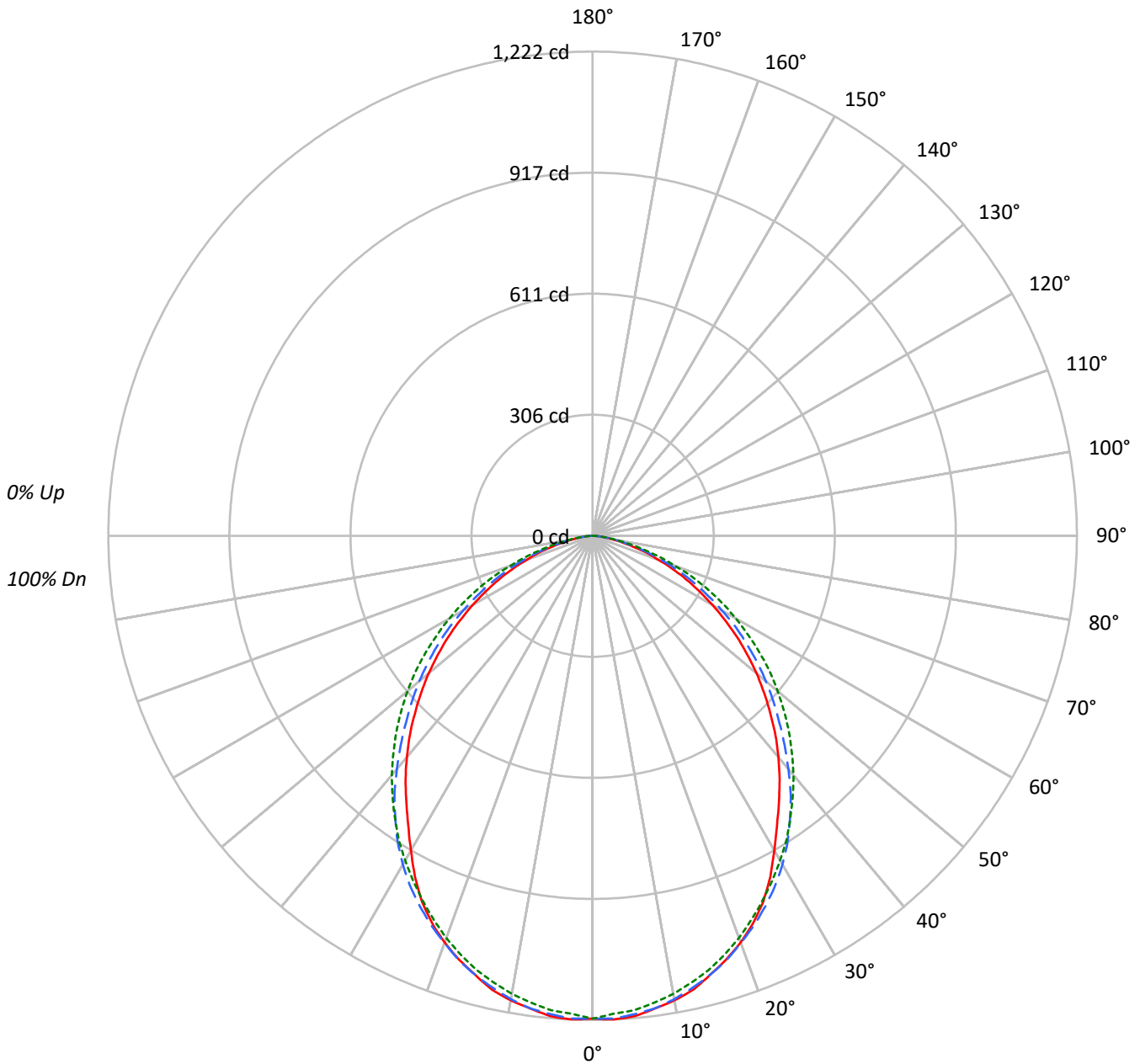
Lumens per Lamp: N/A
Luminaire Lumens: 2818.0 lumens
Efficiency: N/A
Efficacy: 84.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3279	3279	3279
5°	3288	3274	3247
10°	3253	3244	3207
15°	3196	3196	3159
20°	3128	3132	3092
25°	3025	3062	3014
30°	2848	2976	2940
35°	2691	2853	2858
40°	2561	2699	2770
45°	2414	2535	2665
50°	2260	2389	2552
55°	2084	2223	2414
60°	1877	2028	2245
65°	1657	1804	2042
70°	1382	1536	1735
75°	1085	1227	1358
80°	776	863	958
85°	506	506	479



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	4.1
10°-20°	322.4	11.4
20°-30°	471.1	16.7
30°-40°	534.7	19.0
40°-50°	516.2	18.3
50°-60°	425.8	15.1
60°-70°	283.6	10.1
70°-80°	126.9	4.5
80°-90°	22.7	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°	908.2	32.2
0°-40°	1442.9	51.2
0°-60°	2384.8	84.6
0°-90°	2818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1219	1219	1219	1219	1219	
5°	1217	1217	1212	1206	1202	115
15°	1147	1150	1147	1142	1134	323
25°	1019	1027	1031	1024	1015	467
35°	819	831	868	873	870	513
45°	634	645	666	697	700	489
55°	444	452	474	500	514	397
65°	260	267	283	303	321	258
75°	104	110	118	124	131	114
85°	16	16	16	16	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1218.7	1218.7	1218.7	1218.7	1218.7
2.5°	1222.0	1222.5	1219.6	1212.2	1207.5
5°	1217.3	1216.8	1212.2	1205.6	1201.9
7.5°	1203.7	1204.7	1203.3	1193.9	1188.7
10°	1190.6	1191.1	1187.3	1179.9	1173.8
12.5°	1173.8	1173.3	1168.1	1164.4	1154.6
15°	1147.1	1149.9	1147.1	1141.9	1134.0
17.5°	1121.3	1121.3	1123.2	1114.3	1108.2
20°	1092.3	1093.7	1093.7	1086.7	1079.7
22.5°	1058.6	1062.8	1064.2	1056.7	1048.3
25°	1018.8	1026.8	1031.4	1023.9	1015.0
27.5°	970.6	982.7	996.8	991.2	981.3
30°	916.7	934.5	957.9	953.2	946.2
32.5°	865.7	883.5	915.8	913.9	910.2
35°	819.3	830.6	868.5	873.2	869.9
37.5°	775.3	785.6	821.2	832.0	829.2
40°	729.0	740.2	768.3	787.5	788.4
42.5°	683.1	693.9	716.8	744.4	744.4
45°	634.4	645.2	666.2	696.7	700.4
47.5°	586.6	597.9	618.5	648.9	655.0
50°	539.8	550.1	570.7	600.2	609.6
52.5°	491.1	502.4	522.5	549.7	563.2
55°	444.3	451.8	473.8	500.0	514.5
57.5°	395.6	402.6	427.5	449.9	464.9
60°	348.8	357.7	376.9	399.8	417.2
62.5°	303.9	313.2	329.6	349.7	369.4
65°	260.3	267.3	283.3	303.4	320.7
67.5°	218.2	224.3	240.2	254.2	272.5
70°	175.6	183.5	195.2	208.8	220.5
72.5°	141.4	144.7	154.5	164.3	176.5
75°	104.4	110.0	118.0	123.6	130.6
77.5°	74.9	78.2	82.9	87.6	94.1
80°	50.1	51.5	55.7	56.7	61.8
82.5°	30.4	31.4	32.3	32.8	34.6
85°	16.4	16.4	16.4	15.5	15.5
87.5°	9.4	9.4	8.0	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)