

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: P556745

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-88-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: P556745
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-35-UNV-81-88-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

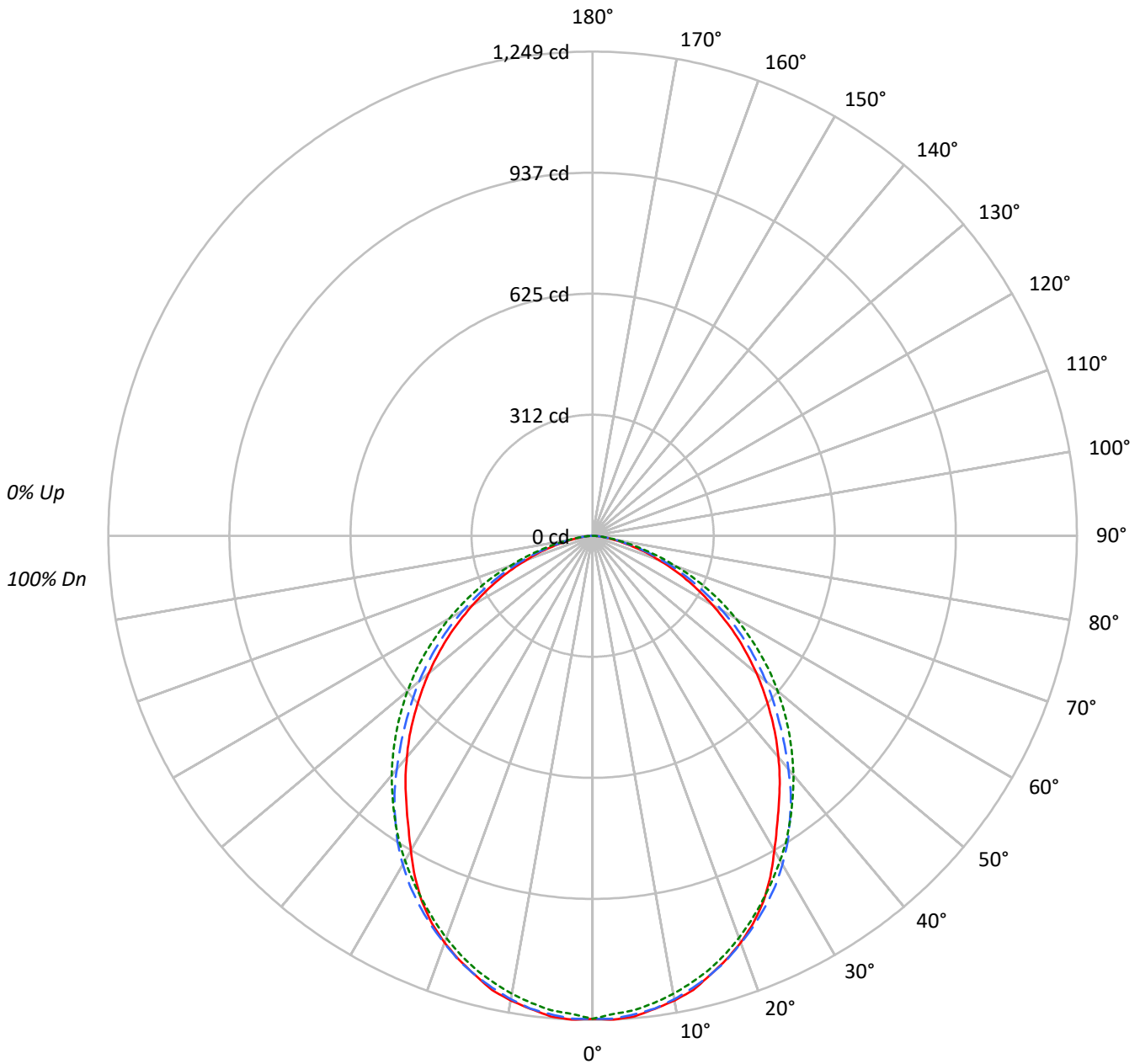
Lumens per Lamp: N/A
Luminaire Lumens: 2881.0 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3353	3353	3353
5°	3362	3348	3319
10°	3326	3317	3279
15°	3267	3267	3230
20°	3198	3202	3161
25°	3093	3131	3081
30°	2912	3043	3006
35°	2752	2917	2922
40°	2618	2759	2832
45°	2468	2592	2725
50°	2310	2443	2609
55°	2131	2273	2468
60°	1919	2074	2295
65°	1694	1844	2088
70°	1412	1570	1773
75°	1109	1254	1388
80°	793	883	979
85°	519	519	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.3	4.1
10°-20°	329.6	11.4
20°-30°	481.6	16.7
30°-40°	546.7	19.0
40°-50°	527.7	18.3
50°-60°	435.3	15.1
60°-70°	289.9	10.1
70°-80°	129.7	4.5
80°-90°	23.2	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°	928.5	32.2
0°-40°	1475.1	51.2
0°-60°	2438.2	84.6
0°-90°	2881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1246	1246	1246	1246	1246	
5°	1244	1244	1239	1233	1229	118
15°	1173	1176	1173	1168	1159	331
25°	1042	1050	1054	1047	1038	477
35°	838	849	888	893	889	525
45°	649	660	681	712	716	500
55°	454	462	484	511	526	405
65°	266	273	290	310	328	264
75°	107	112	121	126	134	117
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°	1246.0	1246.0	1246.0	1246.0	1246.0
2.5°	1249.3	1249.8	1246.9	1239.3	1234.5
5°	1244.5	1244.0	1239.3	1232.6	1228.7
7.5°	1230.6	1231.6	1230.2	1220.6	1215.3
10°	1217.2	1217.7	1213.9	1206.2	1200.0
12.5°	1200.0	1199.5	1194.3	1190.4	1180.4
15°	1172.7	1175.6	1172.7	1167.5	1159.3
17.5°	1146.4	1146.4	1148.3	1139.2	1133.0
20°	1116.7	1118.2	1118.2	1111.0	1103.8
22.5°	1082.3	1086.6	1088.0	1080.3	1071.7
25°	1041.6	1049.7	1054.5	1046.8	1037.7
27.5°	992.3	1004.7	1019.1	1013.3	1003.3
30°	937.2	955.4	979.3	974.6	967.4
32.5°	885.0	903.2	936.3	934.3	930.5
35°	837.7	849.1	887.9	892.7	889.4
37.5°	792.7	803.2	839.6	850.6	847.7
40°	745.3	756.8	785.5	805.1	806.1
42.5°	698.4	709.4	732.8	761.1	761.1
45°	648.6	659.6	681.1	712.2	716.1
47.5°	599.8	611.3	632.3	663.4	669.6
50°	551.9	562.4	583.5	613.6	623.2
52.5°	502.1	513.6	534.2	561.9	575.8
55°	454.3	461.9	484.4	511.2	526.0
57.5°	404.5	411.6	437.0	460.0	475.3
60°	356.6	365.7	385.3	408.8	426.5
62.5°	310.7	320.2	337.0	357.6	377.7
65°	266.1	273.3	289.6	310.2	327.9
67.5°	223.1	229.3	245.6	259.9	278.6
70°	179.5	187.6	199.6	213.5	225.4
72.5°	144.6	147.9	158.0	168.0	180.5
75°	106.7	112.5	120.6	126.4	133.5
77.5°	76.6	79.9	84.7	89.5	96.2
80°	51.2	52.7	57.0	57.9	63.2
82.5°	31.1	32.1	33.0	33.5	35.4
85°	16.8	16.8	16.8	15.8	15.8
87.5°	9.6	9.6	8.1	6.7	4.8
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)