

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: P556742

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-81-87-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: P556742
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-81-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

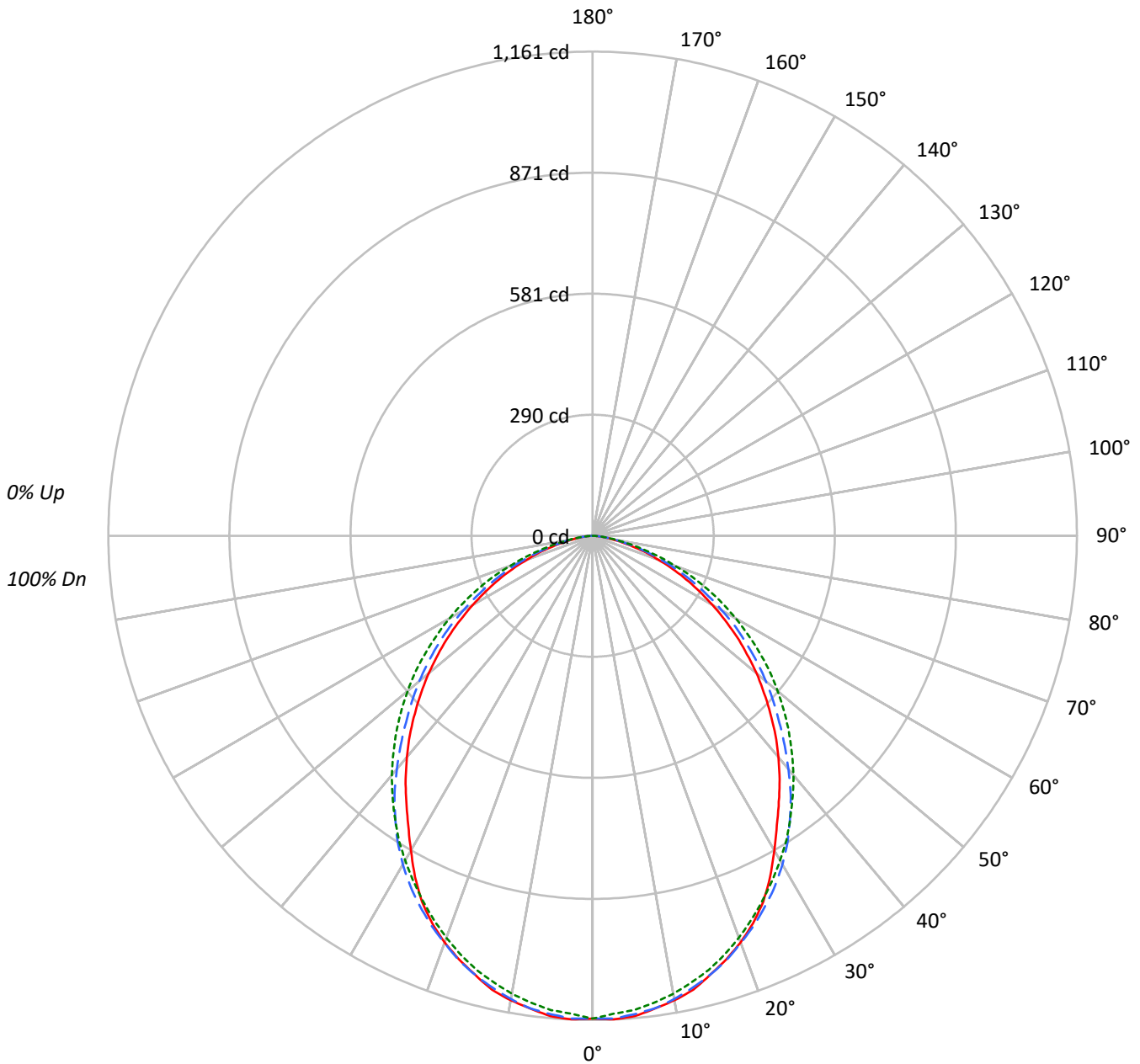
Lumens per Lamp: N/A
Luminaire Lumens: 2677.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: P556742

CATALOG NUMBER: FUSL-12-4-LD4-1STD-35-UNV-81-87-EDD-90

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°	3115	3115	3115
5°	3124	3110	3084
10°	3090	3082	3047
15°	3036	3036	3001
20°	2971	2975	2937
25°	2874	2909	2863
30°	2706	2828	2793
35°	2557	2710	2715
40°	2433	2564	2631
45°	2294	2409	2532
50°	2147	2270	2424
55°	1980	2112	2293
60°	1784	1927	2133
65°	1575	1713	1940
70°	1312	1459	1648
75°	1031	1166	1290
80°	738	820	910
85°	482	482	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.0	4.1
10°-20°	306.2	11.4
20°-30°	447.5	16.7
30°-40°	508.0	19.0
40°-50°	490.3	18.3
50°-60°	404.5	15.1
60°-70°	269.4	10.1
70°-80°	120.5	4.5
80°-90°	21.6	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°	862.7	32.2
0°-40°	1370.7	51.2
0°-60°	2265.5	84.6
0°-90°	2677.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2677.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1158	1158	1158	1158	1158	
5°	1156	1156	1152	1145	1142	109
15°	1090	1092	1090	1085	1077	307
25°	968	975	980	973	964	443
35°	778	789	825	830	826	488
45°	603	613	633	662	665	465
55°	422	429	450	475	489	377
65°	247	254	269	288	305	245
75°	99	104	112	117	124	108
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1157.7	1157.7	1157.7	1157.7	1157.7
2.5°	1160.8	1161.3	1158.6	1151.5	1147.1
5°	1156.4	1156.0	1151.5	1145.3	1141.7
7.5°	1143.5	1144.4	1143.1	1134.2	1129.3
10°	1131.0	1131.5	1127.9	1120.8	1115.0
12.5°	1115.0	1114.6	1109.7	1106.1	1096.8
15°	1089.7	1092.4	1089.7	1084.8	1077.2
17.5°	1065.2	1065.2	1067.0	1058.5	1052.8
20°	1037.6	1039.0	1039.0	1032.3	1025.6
22.5°	1005.6	1009.6	1011.0	1003.8	995.8
25°	967.8	975.4	979.8	972.7	964.3
27.5°	922.0	933.6	946.9	941.6	932.2
30°	870.9	887.8	910.0	905.5	898.9
32.5°	822.4	839.3	870.0	868.2	864.6
35°	778.3	789.0	825.0	829.5	826.4
37.5°	736.5	746.3	780.1	790.4	787.7
40°	692.5	703.2	729.9	748.1	749.0
42.5°	648.9	659.1	680.9	707.2	707.2
45°	602.7	612.9	632.9	661.8	665.4
47.5°	557.3	568.0	587.5	616.4	622.2
50°	512.8	522.6	542.2	570.2	579.1
52.5°	466.6	477.2	496.4	522.2	535.1
55°	422.1	429.2	450.1	475.0	488.8
57.5°	375.8	382.5	406.1	427.4	441.7
60°	331.4	339.8	358.0	379.8	396.3
62.5°	288.7	297.6	313.1	332.2	350.9
65°	247.3	254.0	269.1	288.2	304.7
67.5°	207.3	213.0	228.2	241.5	258.9
70°	166.8	174.3	185.5	198.4	209.5
72.5°	134.3	137.4	146.8	156.1	167.7
75°	99.2	104.5	112.1	117.4	124.1
77.5°	71.2	74.3	78.7	83.2	89.4
80°	47.6	48.9	52.9	53.8	58.7
82.5°	28.9	29.8	30.7	31.1	32.9
85°	15.6	15.6	15.6	14.7	14.7
87.5°	8.9	8.9	7.6	6.2	4.4
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)