

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: P556481

Luminaire Tested: **FUSL-12-4-LD4-1LO-35-UNV-81-84-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: P556481
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-LD4-1LO-35-UNV-81-84-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

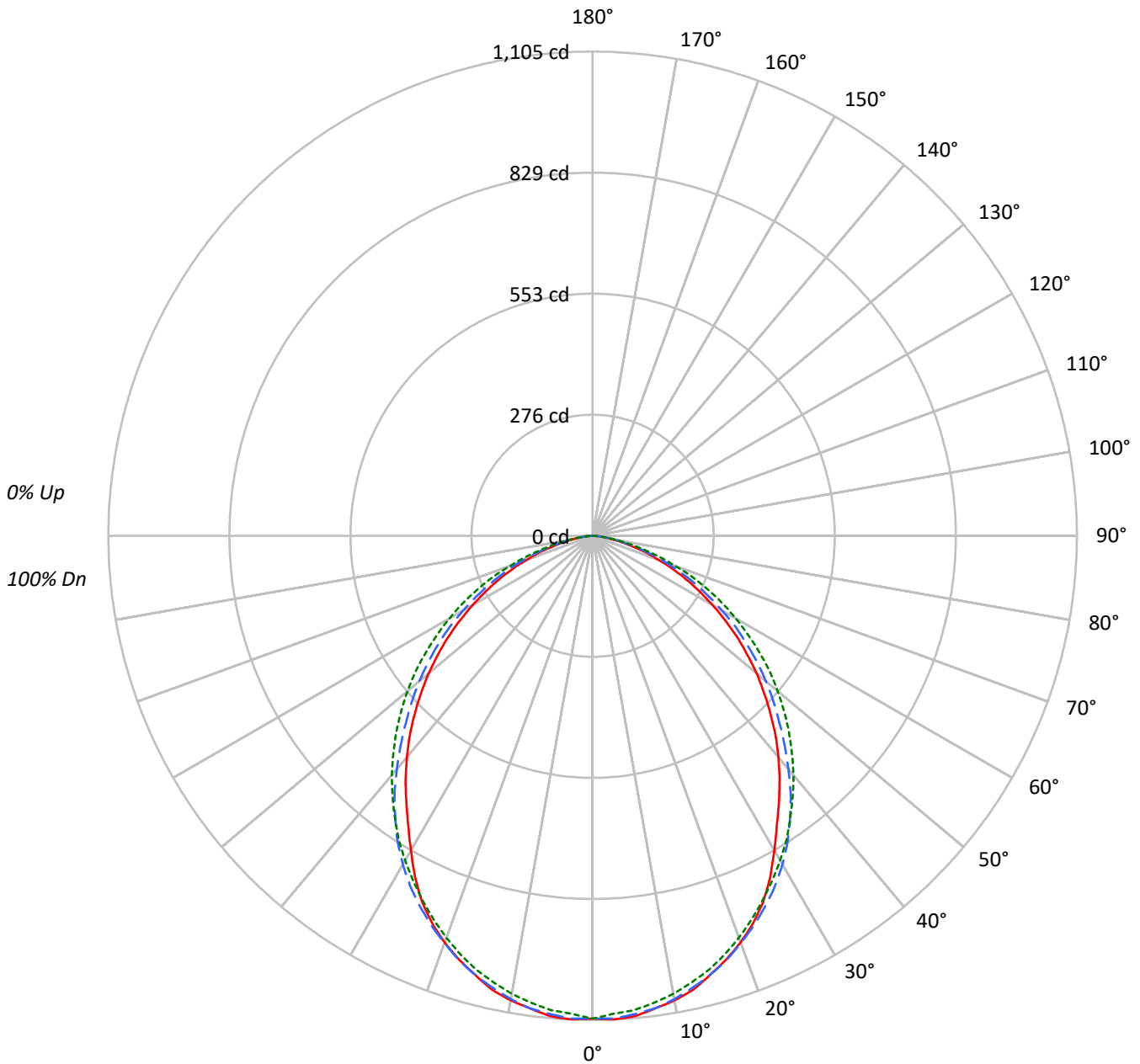
Lumens per Lamp: N/A
Luminaire Lumens: 2548.0 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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: P556481

CATALOG NUMBER: FUSL-12-4-LD4-1LO-35-UNV-81-84-EDD

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°	2965	2965	2965
5°	2973	2961	2935
10°	2942	2934	2900
15°	2890	2890	2856
20°	2828	2832	2796
25°	2735	2769	2725
30°	2576	2691	2659
35°	2434	2580	2584
40°	2315	2440	2504
45°	2183	2293	2410
50°	2043	2160	2308
55°	1885	2010	2183
60°	1697	1834	2030
65°	1499	1631	1847
70°	1249	1389	1569
75°	981	1109	1228
80°	702	781	866
85°	457	457	432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.8	4.1
10°-20°	291.5	11.4
20°-30°	425.9	16.7
30°-40°	483.5	19.0
40°-50°	466.7	18.3
50°-60°	385.0	15.1
60°-70°	256.4	10.1
70°-80°	114.7	4.5
80°-90°	20.5	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°	821.1	32.2
0°-40°	1304.6	51.2
0°-60°	2156.3	84.6
0°-90°	2548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2548.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1101	1100	1096	1090	1087	104
15°	1037	1040	1037	1032	1025	292
25°	921	928	933	926	918	422
35°	741	751	785	790	787	464
45°	574	583	602	630	633	443
55°	402	408	428	452	465	359
65°	235	242	256	274	290	233
75°	94	100	107	112	118	103
85°	15	15	15	14	14	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1101.9	1101.9	1101.9	1101.9	1101.9
2.5°	1104.9	1105.3	1102.8	1096.0	1091.8
5°	1100.7	1100.3	1096.0	1090.1	1086.7
7.5°	1088.4	1089.2	1088.0	1079.5	1074.9
10°	1076.5	1077.0	1073.6	1066.8	1061.3
12.5°	1061.3	1060.9	1056.2	1052.8	1043.9
15°	1037.2	1039.7	1037.2	1032.5	1025.3
17.5°	1013.9	1013.9	1015.6	1007.5	1002.0
20°	987.6	988.9	988.9	982.6	976.2
22.5°	957.2	961.0	962.2	955.5	947.8
25°	921.2	928.4	932.6	925.8	917.8
27.5°	877.6	888.6	901.3	896.2	887.3
30°	828.9	845.0	866.1	861.9	855.6
32.5°	782.7	798.8	828.0	826.4	823.0
35°	740.8	751.0	785.3	789.5	786.6
37.5°	701.0	710.4	742.5	752.3	749.7
40°	659.1	669.3	694.7	712.1	712.9
42.5°	617.6	627.4	648.1	673.1	673.1
45°	573.6	583.4	602.4	629.9	633.3
47.5°	530.4	540.6	559.2	586.7	592.2
50°	488.1	497.4	516.0	542.7	551.2
52.5°	444.1	454.2	472.4	497.0	509.3
55°	401.7	408.5	428.4	452.1	465.2
57.5°	357.7	364.1	386.5	406.8	420.4
60°	315.4	323.4	340.8	361.5	377.2
62.5°	274.7	283.2	298.0	316.2	334.0
65°	235.4	241.7	256.1	274.3	290.0
67.5°	197.3	202.8	217.2	229.9	246.4
70°	158.8	165.9	176.5	188.8	199.4
72.5°	127.8	130.8	139.7	148.6	159.6
75°	94.4	99.5	106.7	111.8	118.1
77.5°	67.7	70.7	74.9	79.2	85.1
80°	45.3	46.6	50.4	51.2	55.9
82.5°	27.5	28.4	29.2	29.6	31.3
85°	14.8	14.8	14.8	14.0	14.0
87.5°	8.5	8.5	7.2	5.9	4.2
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)