

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: P556656

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-80-84-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: P556656
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-80-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC 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

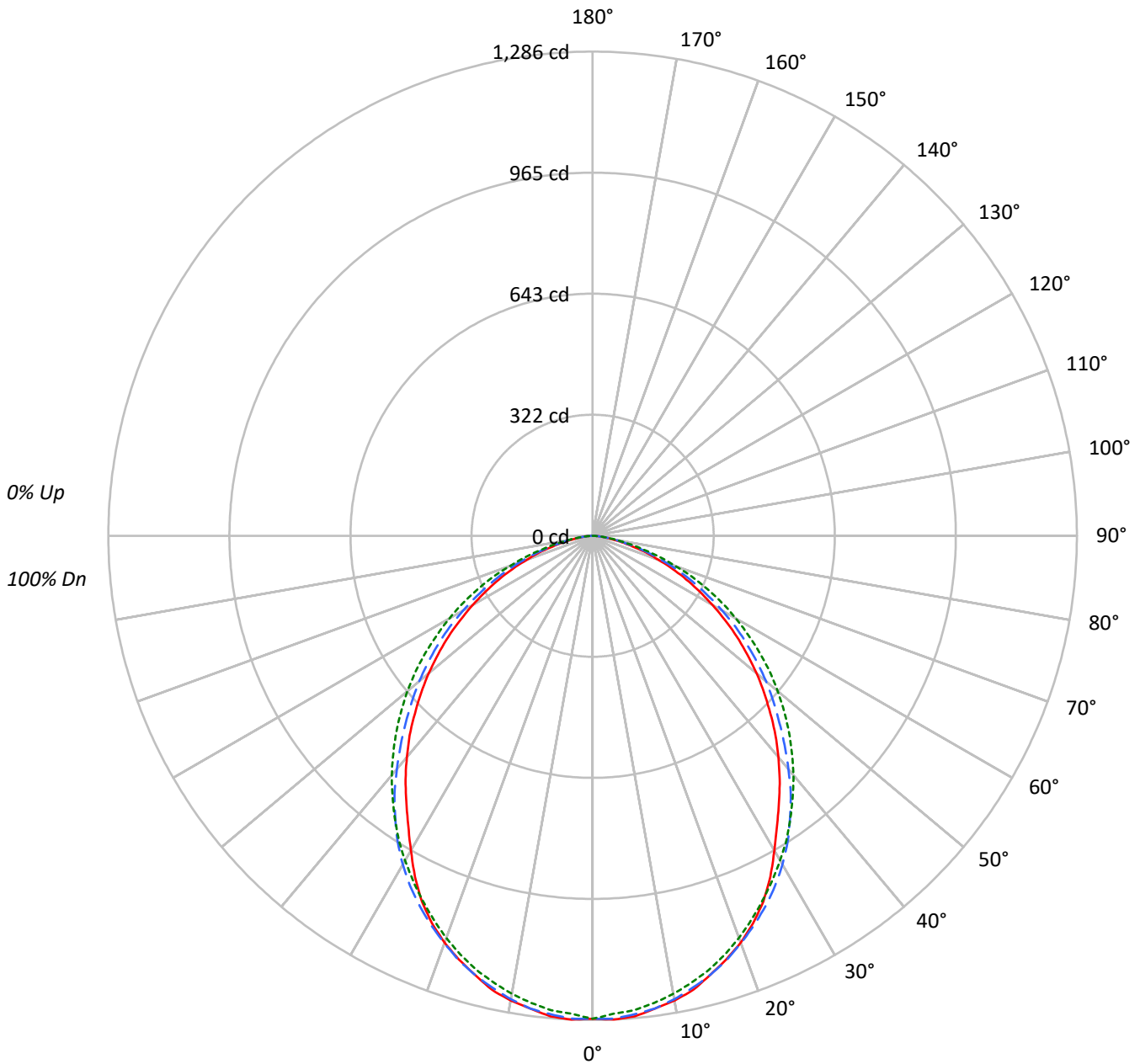
Lumens per Lamp: N/A
Luminaire Lumens: 2966.0 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20				20	
RC	80				70				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				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	47				47
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34				34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30				30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28				28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3452	3452	3452
5°	3461	3446	3417
10°	3424	3415	3376
15°	3363	3363	3325
20°	3292	3296	3254
25°	3184	3223	3172
30°	2998	3133	3095
35°	2833	3003	3008
40°	2695	2841	2915
45°	2541	2668	2806
50°	2379	2515	2686
55°	2194	2340	2541
60°	1976	2135	2363
65°	1745	1898	2150
70°	1454	1617	1826
75°	1143	1291	1430
80°	817	908	1007
85°	531	531	503



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.8	4.1
10°-20°	339.3	11.4
20°-30°	495.8	16.7
30°-40°	562.8	19.0
40°-50°	543.3	18.3
50°-60°	448.2	15.1
60°-70°	298.4	10.1
70°-80°	133.6	4.5
80°-90°	23.9	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°	955.9	32.2
0°-40°	1518.6	51.2
0°-60°	2510.1	84.6
0°-90°	2966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1281	1281	1276	1269	1265	121
15°	1207	1210	1207	1202	1194	340
25°	1072	1081	1086	1078	1068	491
35°	862	874	914	919	916	540
45°	668	679	701	733	737	515
55°	468	476	499	526	542	417
65°	274	281	298	319	338	272
75°	110	116	124	130	138	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°	1282.7	1282.7	1282.7	1282.7	1282.7
2.5°	1286.2	1286.7	1283.7	1275.8	1270.9
5°	1281.2	1280.7	1275.8	1268.9	1265.0
7.5°	1266.9	1267.9	1266.5	1256.6	1251.2
10°	1253.2	1253.6	1249.7	1241.8	1235.4
12.5°	1235.4	1234.9	1229.5	1225.6	1215.2
15°	1207.3	1210.3	1207.3	1201.9	1193.5
17.5°	1180.2	1180.2	1182.2	1172.8	1166.4
20°	1149.7	1151.1	1151.1	1143.8	1136.4
22.5°	1114.2	1118.6	1120.1	1112.2	1103.3
25°	1072.3	1080.7	1085.6	1077.7	1068.4
27.5°	1021.5	1034.4	1049.1	1043.2	1032.9
30°	964.9	983.6	1008.2	1003.3	995.9
32.5°	911.2	929.9	963.9	961.9	958.0
35°	862.4	874.2	914.1	919.0	915.6
37.5°	816.1	826.9	864.3	875.7	872.7
40°	767.3	779.1	808.7	828.9	829.8
42.5°	719.0	730.3	754.5	783.5	783.5
45°	667.7	679.1	701.2	733.3	737.2
47.5°	617.5	629.3	651.0	683.0	689.4
50°	568.2	579.0	600.7	631.7	641.6
52.5°	516.9	528.8	549.9	578.5	592.8
55°	467.7	475.5	498.7	526.3	541.6
57.5°	416.4	423.8	449.9	473.6	489.3
60°	367.1	376.5	396.7	420.8	439.1
62.5°	319.8	329.7	346.9	368.1	388.8
65°	274.0	281.4	298.1	319.3	337.6
67.5°	229.6	236.0	252.8	267.6	286.8
70°	184.8	193.2	205.5	219.8	232.1
72.5°	148.8	152.3	162.6	173.0	185.8
75°	109.9	115.8	124.2	130.1	137.5
77.5°	78.8	82.3	87.2	92.2	99.0
80°	52.7	54.2	58.6	59.6	65.0
82.5°	32.0	33.0	34.0	34.5	36.5
85°	17.2	17.2	17.2	16.3	16.3
87.5°	9.9	9.9	8.4	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)