

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: P556890

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-82-94-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: P556890
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-50-UNV-82-94-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

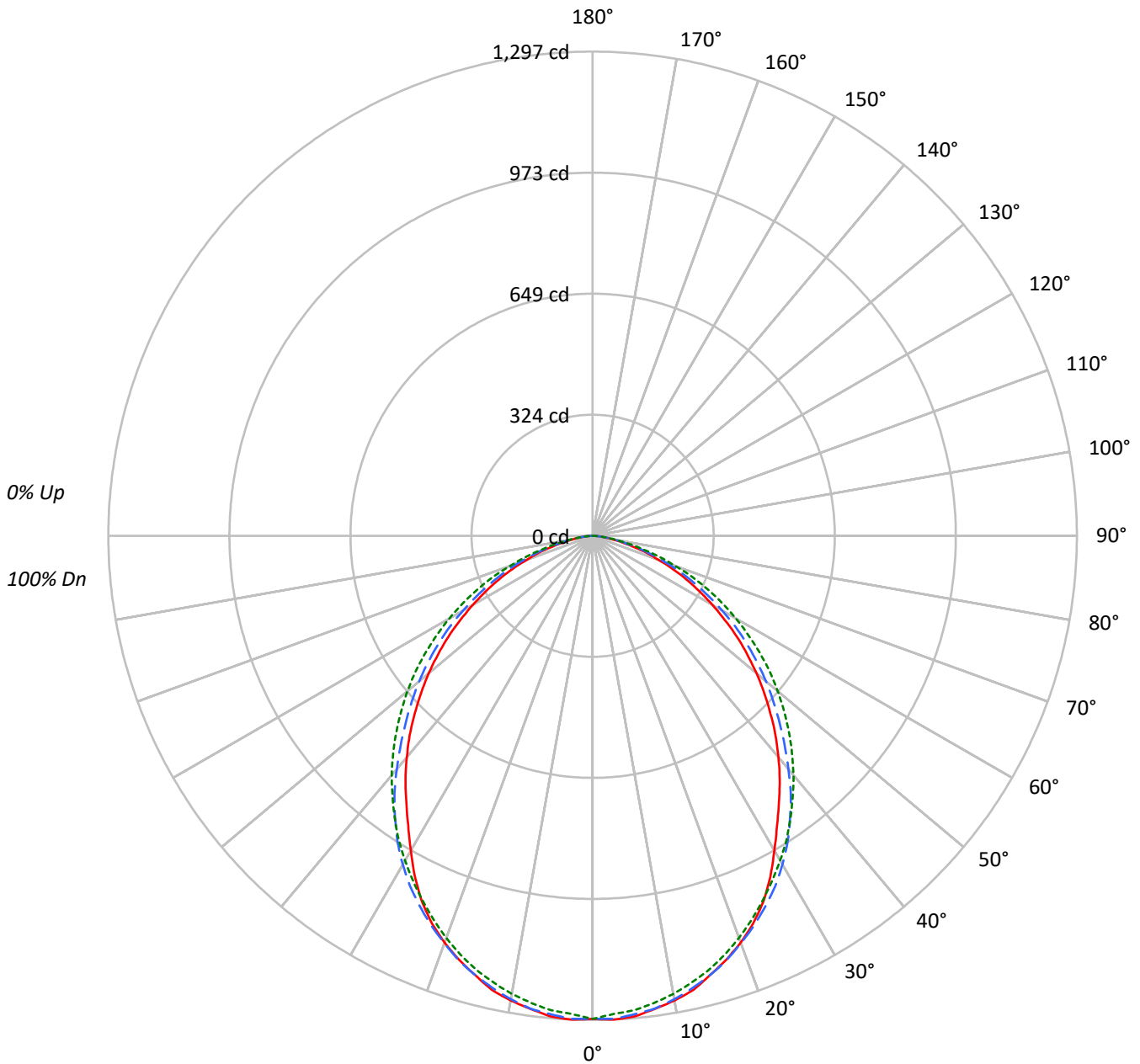
Lumens per Lamp: N/A
Luminaire Lumens: 2992.0 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	3482	3482	3482
5°	3491	3477	3447
10°	3454	3445	3405
15°	3393	3393	3354
20°	3321	3325	3283
25°	3212	3252	3200
30°	3024	3160	3122
35°	2858	3029	3034
40°	2719	2865	2941
45°	2563	2692	2830
50°	2400	2537	2709
55°	2213	2360	2563
60°	1993	2154	2384
65°	1760	1915	2168
70°	1467	1631	1842
75°	1153	1303	1442
80°	824	917	1017
85°	537	537	506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.8	4.1
10°-20°	342.3	11.4
20°-30°	500.1	16.7
30°-40°	567.7	19.0
40°-50°	548.1	18.3
50°-60°	452.1	15.1
60°-70°	301.1	10.1
70°-80°	134.7	4.5
80°-90°	24.1	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°	964.2	32.2
0°-40°	1531.9	51.2
0°-60°	2532.1	84.6
0°-90°	2992.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2992.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1292	1292	1287	1280	1276	122
15°	1218	1221	1218	1212	1204	343
25°	1082	1090	1095	1087	1078	495
35°	870	882	922	927	924	545
45°	674	685	707	740	744	520
55°	472	480	503	531	546	421
65°	276	284	301	322	340	274
75°	111	117	125	131	139	121
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°	1294.0	1294.0	1294.0	1294.0	1294.0
2.5°	1297.4	1297.9	1295.0	1287.0	1282.0
5°	1292.5	1292.0	1287.0	1280.0	1276.1
7.5°	1278.1	1279.0	1277.6	1267.6	1262.1
10°	1264.1	1264.6	1260.7	1252.7	1246.2
12.5°	1246.2	1245.7	1240.3	1236.3	1225.9
15°	1217.9	1220.9	1217.9	1212.4	1204.0
17.5°	1190.6	1190.6	1192.6	1183.1	1176.6
20°	1159.7	1161.2	1161.2	1153.8	1146.3
22.5°	1124.0	1128.4	1129.9	1122.0	1113.0
25°	1081.7	1090.1	1095.1	1087.2	1077.7
27.5°	1030.5	1043.4	1058.3	1052.4	1041.9
30°	973.3	992.2	1017.1	1012.1	1004.6
32.5°	919.1	938.0	972.3	970.3	966.4
35°	869.9	881.9	922.1	927.1	923.6
37.5°	823.2	834.1	871.9	883.4	880.4
40°	774.0	785.9	815.7	836.1	837.1
42.5°	725.3	736.7	761.1	790.4	790.4
45°	673.6	685.0	707.4	739.7	743.7
47.5°	622.9	634.8	656.7	689.0	695.4
50°	573.2	584.1	606.0	637.3	647.2
52.5°	521.5	533.4	554.8	583.6	598.0
55°	471.8	479.7	503.1	530.9	546.3
57.5°	420.1	427.5	453.9	477.7	493.6
60°	370.3	379.8	400.2	424.5	442.9
62.5°	322.6	332.6	350.0	371.3	392.2
65°	276.4	283.8	300.7	322.1	340.5
67.5°	231.7	238.1	255.0	269.9	289.3
70°	186.4	194.9	207.3	221.7	234.1
72.5°	150.1	153.6	164.0	174.5	187.4
75°	110.9	116.8	125.3	131.2	138.7
77.5°	79.5	83.0	88.0	93.0	99.9
80°	53.2	54.7	59.2	60.1	65.6
82.5°	32.3	33.3	34.3	34.8	36.8
85°	17.4	17.4	17.4	16.4	16.4
87.5°	9.9	9.9	8.5	7.0	5.0
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)