

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: P556788

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-UNV-80-86-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: P556788
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-40-UNV-80-86-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

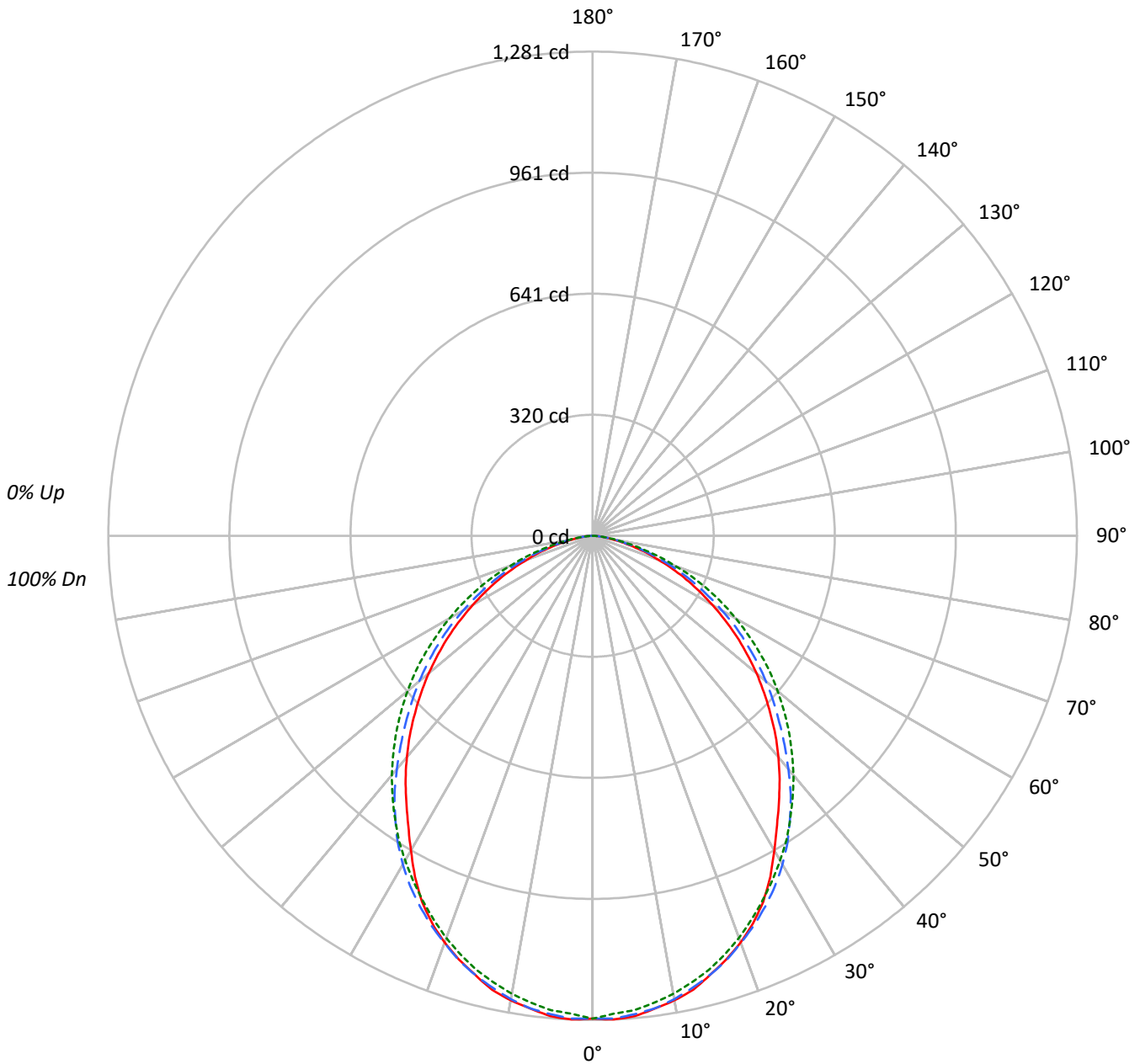
Lumens per Lamp: N/A
Luminaire Lumens: 2954.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	3438	3438	3438
5°	3447	3432	3403
10°	3410	3401	3362
15°	3350	3350	3312
20°	3279	3283	3241
25°	3171	3210	3159
30°	2986	3120	3082
35°	2822	2991	2996
40°	2684	2829	2903
45°	2531	2658	2794
50°	2369	2505	2675
55°	2185	2330	2531
60°	1968	2126	2354
65°	1738	1890	2141
70°	1448	1611	1819
75°	1137	1286	1423
80°	814	905	1004
85°	531	531	500



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.3	4.1
10°-20°	337.9	11.4
20°-30°	493.8	16.7
30°-40°	560.5	19.0
40°-50°	541.1	18.3
50°-60°	446.4	15.1
60°-70°	297.2	10.1
70°-80°	133.0	4.5
80°-90°	23.8	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°	952.0	32.2
0°-40°	1512.5	51.2
0°-60°	2500.0	84.6
0°-90°	2954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1278	1278	1278	1278	1278	
5°	1276	1276	1271	1264	1260	121
15°	1202	1205	1202	1197	1189	339
25°	1068	1076	1081	1073	1064	489
35°	859	871	910	915	912	538
45°	665	676	698	730	734	513
55°	466	474	497	524	539	416
65°	273	280	297	318	336	271
75°	109	115	124	130	137	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°	1277.5	1277.5	1277.5	1277.5	1277.5
2.5°	1281.0	1281.5	1278.5	1270.7	1265.7
5°	1276.1	1275.6	1270.7	1263.8	1259.9
7.5°	1261.8	1262.8	1261.3	1251.5	1246.1
10°	1248.1	1248.6	1244.6	1236.8	1230.4
12.5°	1230.4	1229.9	1224.5	1220.6	1210.3
15°	1202.4	1205.4	1202.4	1197.0	1188.7
17.5°	1175.4	1175.4	1177.4	1168.1	1161.7
20°	1145.0	1146.5	1146.5	1139.1	1131.8
22.5°	1109.7	1114.1	1115.6	1107.7	1098.9
25°	1068.0	1076.3	1081.2	1073.4	1064.0
27.5°	1017.4	1030.2	1044.9	1039.0	1028.7
30°	961.0	979.6	1004.2	999.3	991.9
32.5°	907.5	926.1	960.0	958.0	954.1
35°	858.9	870.7	910.4	915.3	911.9
37.5°	812.7	823.5	860.8	872.1	869.2
40°	764.2	775.9	805.4	825.5	826.5
42.5°	716.1	727.4	751.4	780.4	780.4
45°	665.0	676.3	698.4	730.3	734.2
47.5°	615.0	626.7	648.3	680.2	686.6
50°	565.9	576.7	598.3	629.2	639.0
52.5°	514.8	526.6	547.7	576.2	590.4
55°	465.8	473.6	496.7	524.2	539.4
57.5°	414.7	422.1	448.1	471.7	487.4
60°	365.6	375.0	395.1	419.1	437.3
62.5°	318.5	328.3	345.5	366.6	387.2
65°	272.9	280.2	296.9	318.0	336.2
67.5°	228.7	235.1	251.8	266.5	285.6
70°	184.0	192.4	204.7	218.9	231.2
72.5°	148.2	151.7	162.0	172.3	185.0
75°	109.4	115.3	123.7	129.6	136.9
77.5°	78.5	82.0	86.9	91.8	98.6
80°	52.5	54.0	58.4	59.4	64.8
82.5°	31.9	32.9	33.9	34.4	36.3
85°	17.2	17.2	17.2	16.2	16.2
87.5°	9.8	9.8	8.3	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)