

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: P556854

Luminaire Tested: **FUSL-12-4-LD4-1STD-50-UNV-80-87-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: P556854
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-80-87-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND
.375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

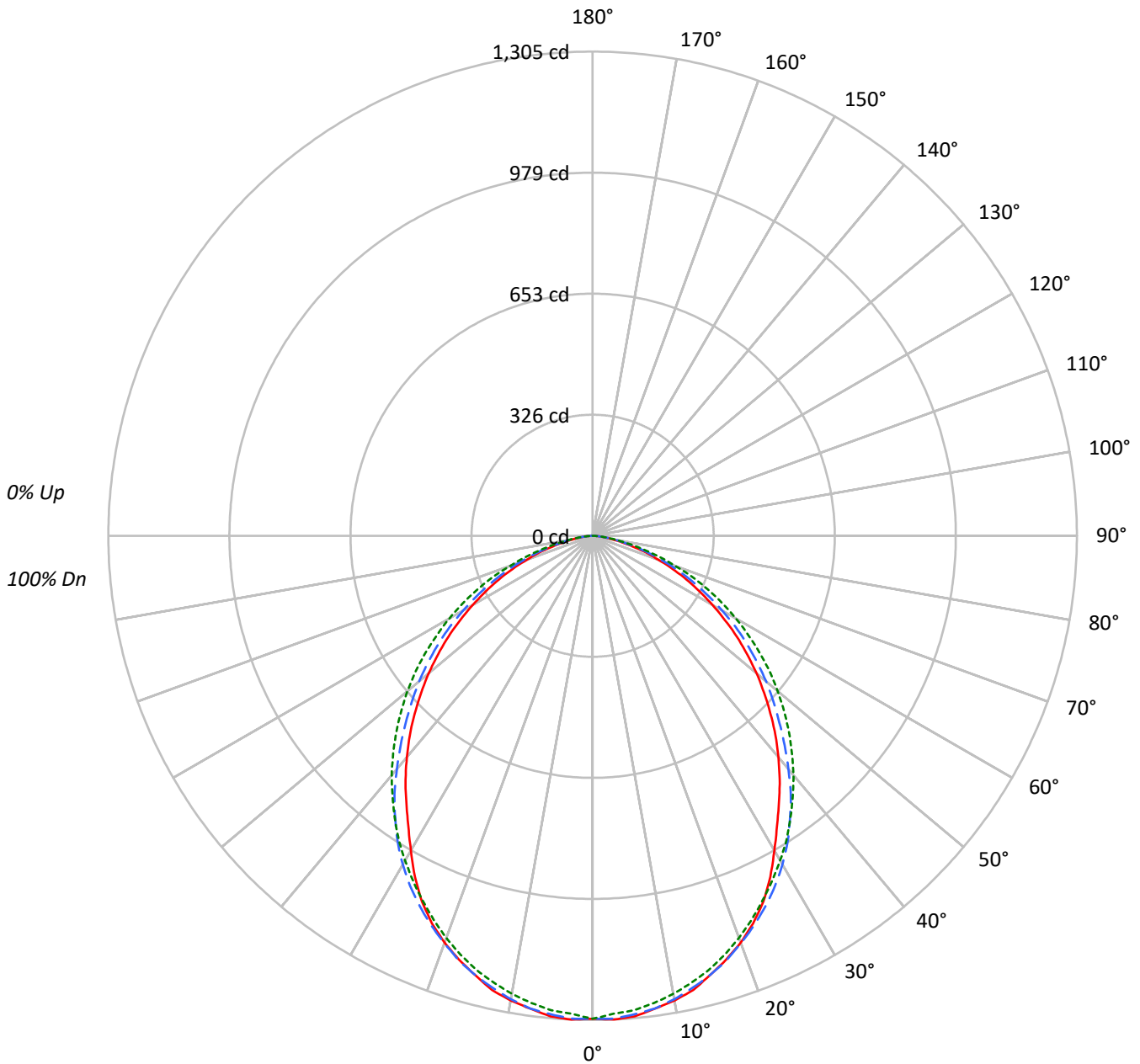
Lumens per Lamp: N/A
Luminaire Lumens: 3010.0 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (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									
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°	3503	3503	3503
5°	3512	3497	3468
10°	3475	3465	3426
15°	3413	3413	3374
20°	3341	3345	3302
25°	3231	3271	3219
30°	3043	3179	3141
35°	2875	3048	3052
40°	2735	2883	2958
45°	2579	2708	2847
50°	2414	2552	2726
55°	2227	2374	2578
60°	2005	2167	2398
65°	1771	1927	2181
70°	1475	1640	1853
75°	1159	1310	1450
80°	829	922	1023
85°	540	540	509



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	4.1
10°-20°	344.3	11.4
20°-30°	503.2	16.7
30°-40°	571.2	19.0
40°-50°	551.3	18.3
50°-60°	454.8	15.1
60°-70°	302.9	10.1
70°-80°	135.5	4.5
80°-90°	24.2	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°	970.0	32.2
0°-40°	1541.2	51.2
0°-60°	2547.3	84.6
0°-90°	3010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3010.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1302	1302	1302	1302	1302	
5°	1300	1300	1295	1288	1284	123
15°	1225	1228	1225	1220	1211	345
25°	1088	1097	1102	1094	1084	498
35°	875	887	928	933	929	548
45°	678	689	712	744	748	523
55°	475	483	506	534	550	424
65°	278	286	303	324	343	276
75°	112	118	126	132	140	122
85°	18	18	18	16	16	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1301.7	1301.7	1301.7	1301.7	1301.7
2.5°	1305.2	1305.7	1302.7	1294.7	1289.7
5°	1300.2	1299.7	1294.7	1287.7	1283.7
7.5°	1285.7	1286.7	1285.2	1275.2	1269.7
10°	1271.7	1272.2	1268.2	1260.2	1253.7
12.5°	1253.7	1253.2	1247.7	1243.7	1233.2
15°	1225.2	1228.2	1225.2	1219.7	1211.2
17.5°	1197.7	1197.7	1199.7	1190.2	1183.7
20°	1166.7	1168.2	1168.2	1160.7	1153.2
22.5°	1130.7	1135.2	1136.7	1128.7	1119.7
25°	1088.2	1096.7	1101.7	1093.7	1084.2
27.5°	1036.7	1049.7	1064.7	1058.7	1048.2
30°	979.2	998.2	1023.2	1018.2	1010.7
32.5°	924.7	943.7	978.2	976.2	972.2
35°	875.2	887.2	927.7	932.7	929.2
37.5°	828.2	839.2	877.2	888.7	885.7
40°	778.6	790.7	820.7	841.2	842.2
42.5°	729.6	741.1	765.6	795.2	795.2
45°	677.6	689.1	711.6	744.1	748.1
47.5°	626.6	638.6	660.6	693.1	699.6
50°	576.6	587.6	609.6	641.1	651.1
52.5°	524.6	536.6	558.1	587.1	601.6
55°	474.6	482.6	506.1	534.1	549.6
57.5°	422.6	430.1	456.6	480.6	496.6
60°	372.6	382.1	402.6	427.1	445.6
62.5°	324.6	334.6	352.1	373.6	394.6
65°	278.1	285.6	302.6	324.1	342.6
67.5°	233.0	239.5	256.5	271.6	291.1
70°	187.5	196.0	208.5	223.0	235.5
72.5°	151.0	154.5	165.0	175.5	188.5
75°	111.5	117.5	126.0	132.0	139.5
77.5°	80.0	83.5	88.5	93.5	100.5
80°	53.5	55.0	59.5	60.5	66.0
82.5°	32.5	33.5	34.5	35.0	37.0
85°	17.5	17.5	17.5	16.5	16.5
87.5°	10.0	10.0	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)