

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: P556693

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-86-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: P556693
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-82-86-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

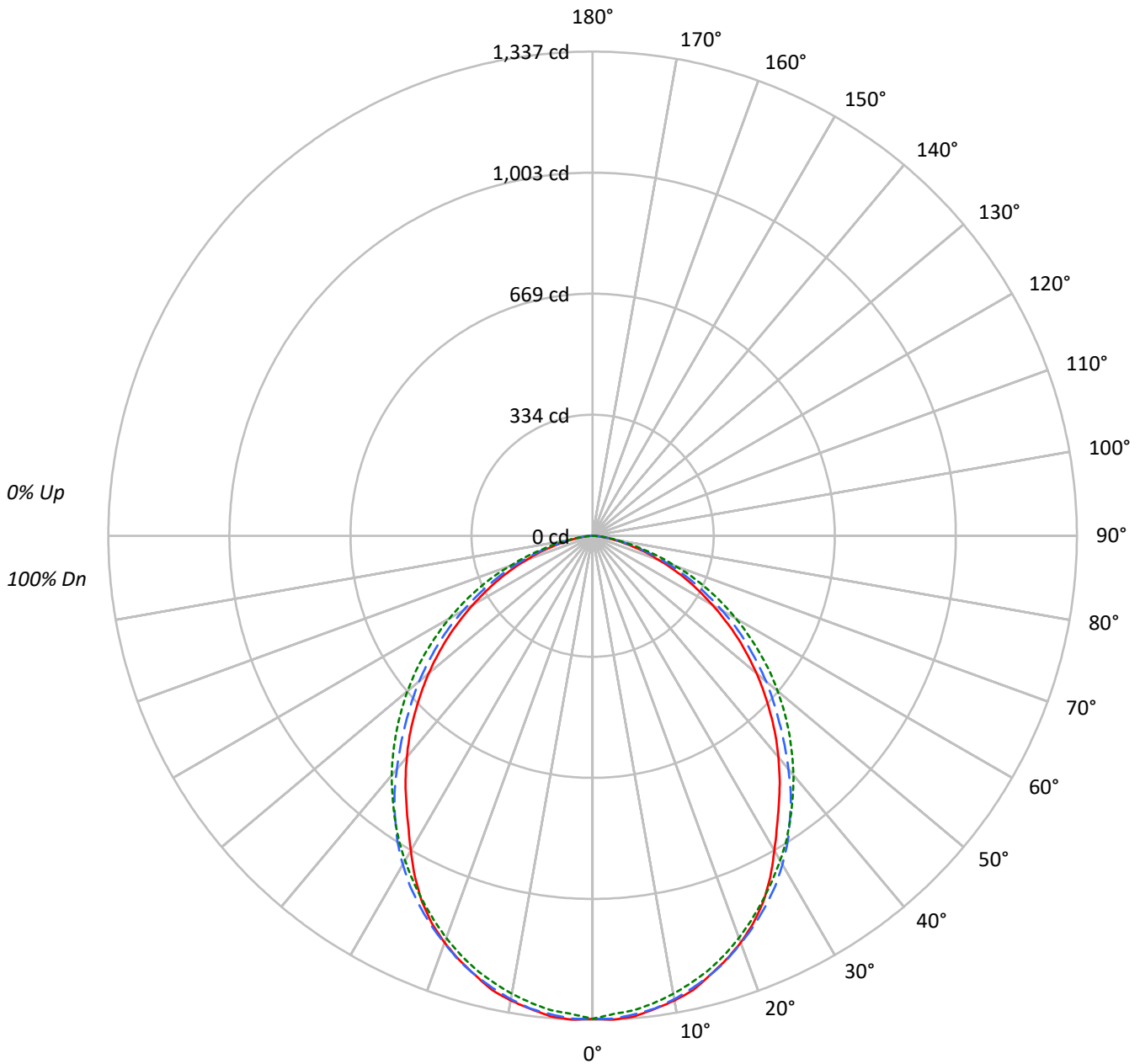
Lumens per Lamp: N/A
Luminaire Lumens: 3084.0 lumens
Efficiency: N/A
Efficacy: 92.6 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3589	3589	3589
5°	3599	3583	3553
10°	3560	3551	3510
15°	3497	3497	3457
20°	3423	3428	3384
25°	3311	3352	3298
30°	3118	3257	3218
35°	2946	3122	3127
40°	2803	2954	3031
45°	2642	2775	2917
50°	2473	2615	2793
55°	2282	2433	2642
60°	2054	2220	2457
65°	1814	1974	2235
70°	1511	1681	1899
75°	1188	1342	1487
80°	849	945	1048
85°	553	553	522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.6	4.1
10°-20°	352.8	11.4
20°-30°	515.5	16.7
30°-40°	585.2	19.0
40°-50°	564.9	18.3
50°-60°	466.0	15.1
60°-70°	310.3	10.1
70°-80°	138.9	4.5
80°-90°	24.8	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°	993.9	32.2
0°-40°	1579.1	51.2
0°-60°	2610.0	84.6
0°-90°	3084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1332	1332	1327	1319	1315	126
15°	1255	1258	1255	1250	1241	354
25°	1115	1124	1129	1121	1111	511
35°	897	909	950	956	952	562
45°	694	706	729	762	766	536
55°	486	494	518	547	563	434
65°	285	293	310	332	351	282
75°	114	120	129	135	143	125
85°	18	18	18	17	17	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1333.8	1333.8	1333.8	1333.8	1333.8
2.5°	1337.3	1337.8	1334.8	1326.6	1321.5
5°	1332.2	1331.7	1326.6	1319.4	1315.3
7.5°	1317.4	1318.4	1316.8	1306.6	1301.0
10°	1303.0	1303.5	1299.4	1291.2	1284.6
12.5°	1284.6	1284.0	1278.4	1274.3	1263.6
15°	1255.4	1258.4	1255.4	1249.7	1241.0
17.5°	1227.2	1227.2	1229.2	1219.5	1212.8
20°	1195.4	1196.9	1196.9	1189.3	1181.6
22.5°	1158.5	1163.1	1164.7	1156.5	1147.2
25°	1115.0	1123.7	1128.8	1120.6	1110.9
27.5°	1062.2	1075.5	1090.9	1084.7	1074.0
30°	1003.3	1022.7	1048.3	1043.2	1035.5
32.5°	947.4	966.9	1002.2	1000.2	996.1
35°	896.7	909.0	950.5	955.6	952.0
37.5°	848.5	859.8	898.7	910.5	907.4
40°	797.8	810.1	840.8	861.8	862.9
42.5°	747.6	759.4	784.5	814.7	814.7
45°	694.3	706.1	729.1	762.4	766.5
47.5°	642.0	654.3	676.9	710.2	716.8
50°	590.8	602.1	624.6	656.9	667.1
52.5°	537.5	549.8	571.8	601.5	616.4
55°	486.3	494.5	518.5	547.2	563.1
57.5°	433.0	440.7	467.8	492.4	508.8
60°	381.7	391.5	412.5	437.6	456.5
62.5°	332.5	342.8	360.7	382.8	404.3
65°	284.9	292.6	310.0	332.0	351.0
67.5°	238.8	245.4	262.9	278.2	298.2
70°	192.1	200.9	213.7	228.5	241.3
72.5°	154.7	158.3	169.1	179.8	193.2
75°	114.3	120.4	129.1	135.3	143.0
77.5°	82.0	85.6	90.7	95.8	103.0
80°	54.8	56.4	61.0	62.0	67.6
82.5°	33.3	34.3	35.4	35.9	37.9
85°	17.9	17.9	17.9	16.9	16.9
87.5°	10.2	10.2	8.7	7.2	5.1
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)