

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: P556699

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-94-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: P556699
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-82-94-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

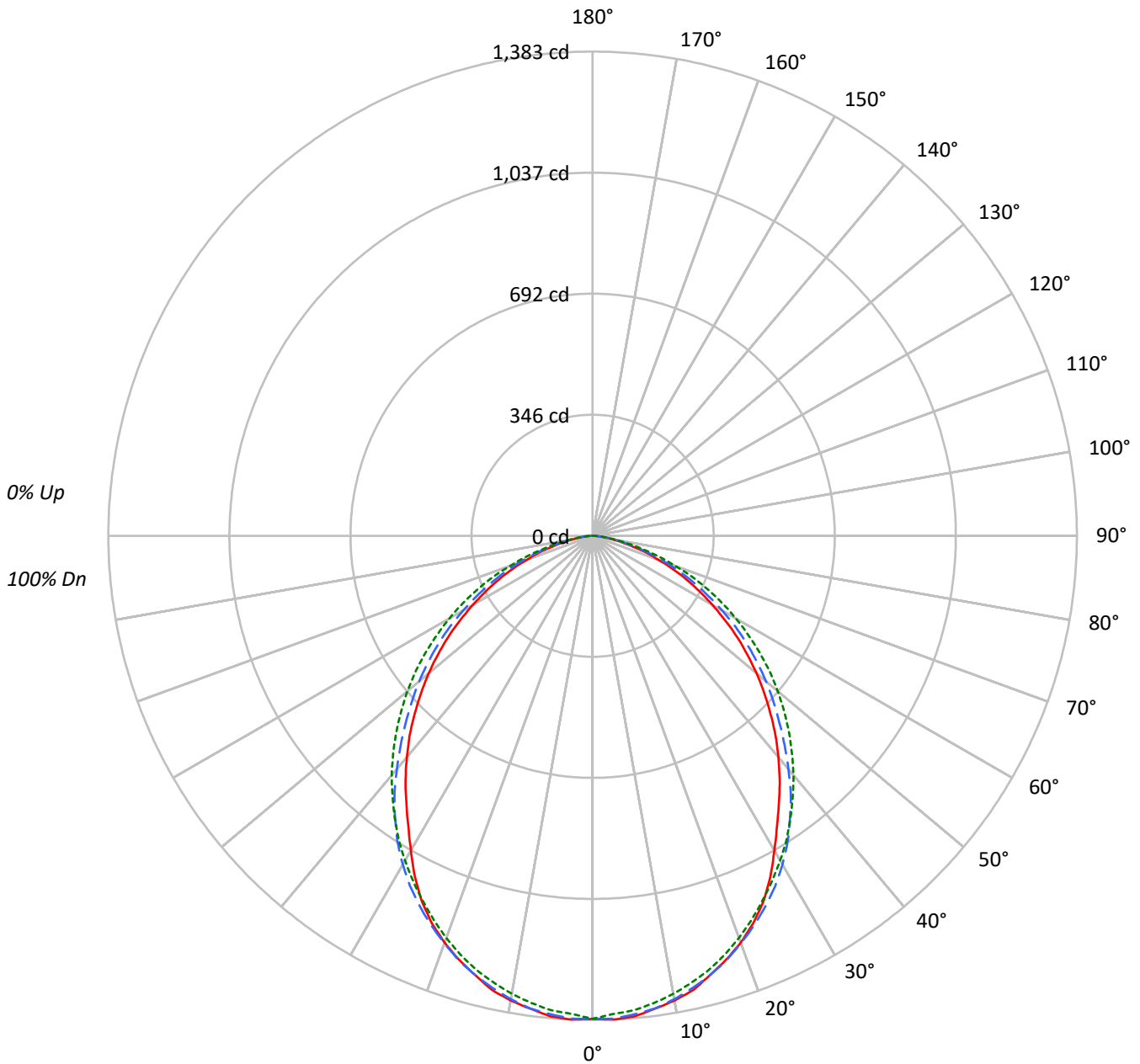
Lumens per Lamp: N/A
Luminaire Lumens: 3190.0 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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									
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°	3712	3712	3712
5°	3722	3707	3675
10°	3683	3673	3631
15°	3617	3617	3576
20°	3541	3546	3500
25°	3424	3467	3412
30°	3224	3370	3328
35°	3047	3230	3235
40°	2899	3055	3135
45°	2733	2870	3017
50°	2558	2705	2889
55°	2360	2517	2733
60°	2125	2296	2541
65°	1876	2042	2312
70°	1564	1739	1964
75°	1229	1389	1538
80°	879	978	1085
85°	574	574	540



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.9	4.1
10°-20°	364.9	11.4
20°-30°	533.2	16.7
30°-40°	605.3	19.0
40°-50°	584.3	18.3
50°-60°	482.0	15.1
60°-70°	321.0	10.1
70°-80°	143.6	4.5
80°-90°	25.7	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°	1028.1	32.2
0°-40°	1633.3	51.2
0°-60°	2699.7	84.6
0°-90°	3190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1378	1378	1372	1365	1360	130
15°	1298	1302	1298	1293	1284	366
25°	1153	1162	1168	1159	1149	528
35°	928	940	983	988	985	581
45°	718	730	754	789	793	554
55°	503	512	536	566	582	449
65°	295	303	321	343	363	292
75°	118	125	134	140	148	129
85°	19	19	19	18	18	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1379.6	1379.6	1379.6	1379.6	1379.6
2.5°	1383.3	1383.8	1380.7	1372.2	1366.9
5°	1378.0	1377.5	1372.2	1364.8	1360.5
7.5°	1362.6	1363.7	1362.1	1351.5	1345.7
10°	1347.8	1348.3	1344.1	1335.6	1328.7
12.5°	1328.7	1328.2	1322.4	1318.1	1307.0
15°	1298.5	1301.7	1298.5	1292.7	1283.7
17.5°	1269.4	1269.4	1271.5	1261.4	1254.5
20°	1236.5	1238.1	1238.1	1230.1	1222.2
22.5°	1198.3	1203.1	1204.7	1196.2	1186.7
25°	1153.3	1162.3	1167.6	1159.1	1149.0
27.5°	1098.7	1112.5	1128.4	1122.0	1110.9
30°	1037.7	1057.9	1084.4	1079.1	1071.1
32.5°	980.0	1000.1	1036.7	1034.6	1030.3
35°	927.5	940.2	983.2	988.5	984.7
37.5°	877.7	889.3	929.6	941.8	938.6
40°	825.2	837.9	869.7	891.5	892.5
42.5°	773.3	785.5	811.4	842.7	842.7
45°	718.2	730.3	754.2	788.6	792.9
47.5°	664.1	676.8	700.1	734.6	741.5
50°	611.1	622.8	646.1	679.5	690.1
52.5°	556.0	568.7	591.5	622.2	637.6
55°	503.0	511.5	536.4	566.0	582.5
57.5°	447.9	455.8	483.9	509.3	526.3
60°	394.9	404.9	426.7	452.6	472.2
62.5°	344.0	354.6	373.1	395.9	418.2
65°	294.7	302.6	320.7	343.4	363.1
67.5°	247.0	253.9	271.9	287.8	308.5
70°	198.8	207.8	221.0	236.4	249.6
72.5°	160.1	163.8	174.9	186.0	199.8
75°	118.2	124.6	133.6	139.9	147.9
77.5°	84.8	88.5	93.8	99.1	106.5
80°	56.7	58.3	63.1	64.1	70.0
82.5°	34.5	35.5	36.6	37.1	39.2
85°	18.6	18.6	18.6	17.5	17.5
87.5°	10.6	10.6	9.0	7.4	5.3
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)