

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: P556826

Luminaire Tested: **FUSL-12-4-LD4-1STD-40-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: P556826
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-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 4000K CCT LEDES
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

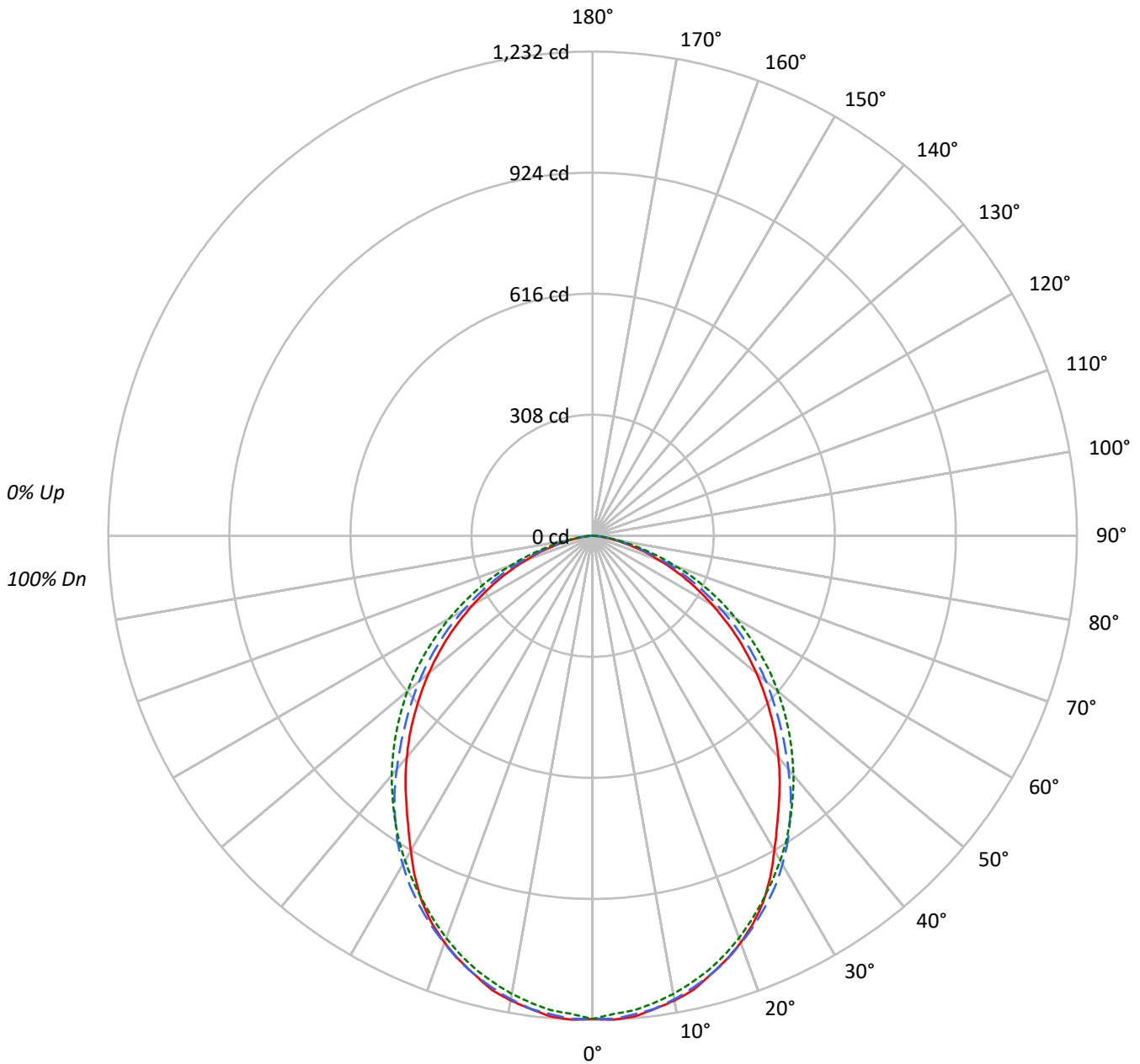
Lumens per Lamp: N/A
Luminaire Lumens: 2842.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3307	3307	3307
5°	3316	3302	3274
10°	3281	3272	3235
15°	3223	3223	3186
20°	3155	3159	3118
25°	3051	3089	3040
30°	2873	3002	2965
35°	2714	2877	2882
40°	2583	2722	2793
45°	2435	2557	2688
50°	2279	2410	2574
55°	2102	2242	2434
60°	1893	2046	2264
65°	1671	1819	2059
70°	1393	1549	1750
75°	1095	1237	1369
80°	783	871	965
85°	509	509	482



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	4.1
10°-20°	325.1	11.4
20°-30°	475.1	16.7
30°-40°	539.3	19.0
40°-50°	520.6	18.3
50°-60°	429.4	15.1
60°-70°	286.0	10.1
70°-80°	128.0	4.5
80°-90°	22.9	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°	915.9	32.2
0°-40°	1455.2	51.2
0°-60°	2405.2	84.6
0°-90°	2842.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2842.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1229	1229	1229	1229	1229	
5°	1228	1227	1222	1216	1212	116
15°	1157	1160	1157	1152	1144	326
25°	1028	1036	1040	1033	1024	471
35°	826	838	876	881	877	518
45°	640	651	672	703	706	494
55°	448	456	478	504	519	400
65°	262	270	286	306	323	260
75°	105	111	119	125	132	115
85°	16	16	16	16	16	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1229.1	1229.1	1229.1	1229.1	1229.1
2.5°	1232.4	1232.9	1230.0	1222.5	1217.8
5°	1227.7	1227.2	1222.5	1215.9	1212.1
7.5°	1214.0	1214.9	1213.5	1204.1	1198.9
10°	1200.8	1201.2	1197.5	1189.9	1183.8
12.5°	1183.8	1183.3	1178.1	1174.3	1164.4
15°	1156.8	1159.7	1156.8	1151.7	1143.6
17.5°	1130.9	1130.9	1132.8	1123.8	1117.7
20°	1101.6	1103.0	1103.0	1095.9	1088.9
22.5°	1067.6	1071.9	1073.3	1065.7	1057.2
25°	1027.5	1035.5	1040.2	1032.7	1023.7
27.5°	978.8	991.1	1005.3	999.6	989.7
30°	924.5	942.5	966.1	961.4	954.3
32.5°	873.1	891.0	923.6	921.7	917.9
35°	826.3	837.7	875.9	880.6	877.3
37.5°	781.9	792.3	828.2	839.1	836.2
40°	735.2	746.5	774.9	794.2	795.2
42.5°	688.9	699.8	722.9	750.8	750.8
45°	639.8	650.7	671.9	702.6	706.4
47.5°	591.6	603.0	623.8	654.4	660.6
50°	544.4	554.8	575.6	605.3	614.8
52.5°	495.3	506.7	527.0	554.3	568.0
55°	448.1	455.7	477.8	504.3	518.9
57.5°	399.0	406.1	431.1	453.8	468.9
60°	351.8	360.7	380.1	403.2	420.7
62.5°	306.4	315.9	332.4	352.7	372.6
65°	262.5	269.6	285.7	306.0	323.4
67.5°	220.0	226.2	242.2	256.4	274.8
70°	177.1	185.1	196.9	210.6	222.4
72.5°	142.6	145.9	155.8	165.7	178.0
75°	105.3	111.0	119.0	124.7	131.7
77.5°	75.5	78.9	83.6	88.3	94.9
80°	50.5	51.9	56.2	57.1	62.3
82.5°	30.7	31.6	32.6	33.1	34.9
85°	16.5	16.5	16.5	15.6	15.6
87.5°	9.4	9.4	8.0	6.6	4.7
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)