

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: P556752

Luminaire Tested: **FUSL-12-4-LD4-1STD-35-UNV-82-84-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: P556752
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-35-UNV-82-84-EDD-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

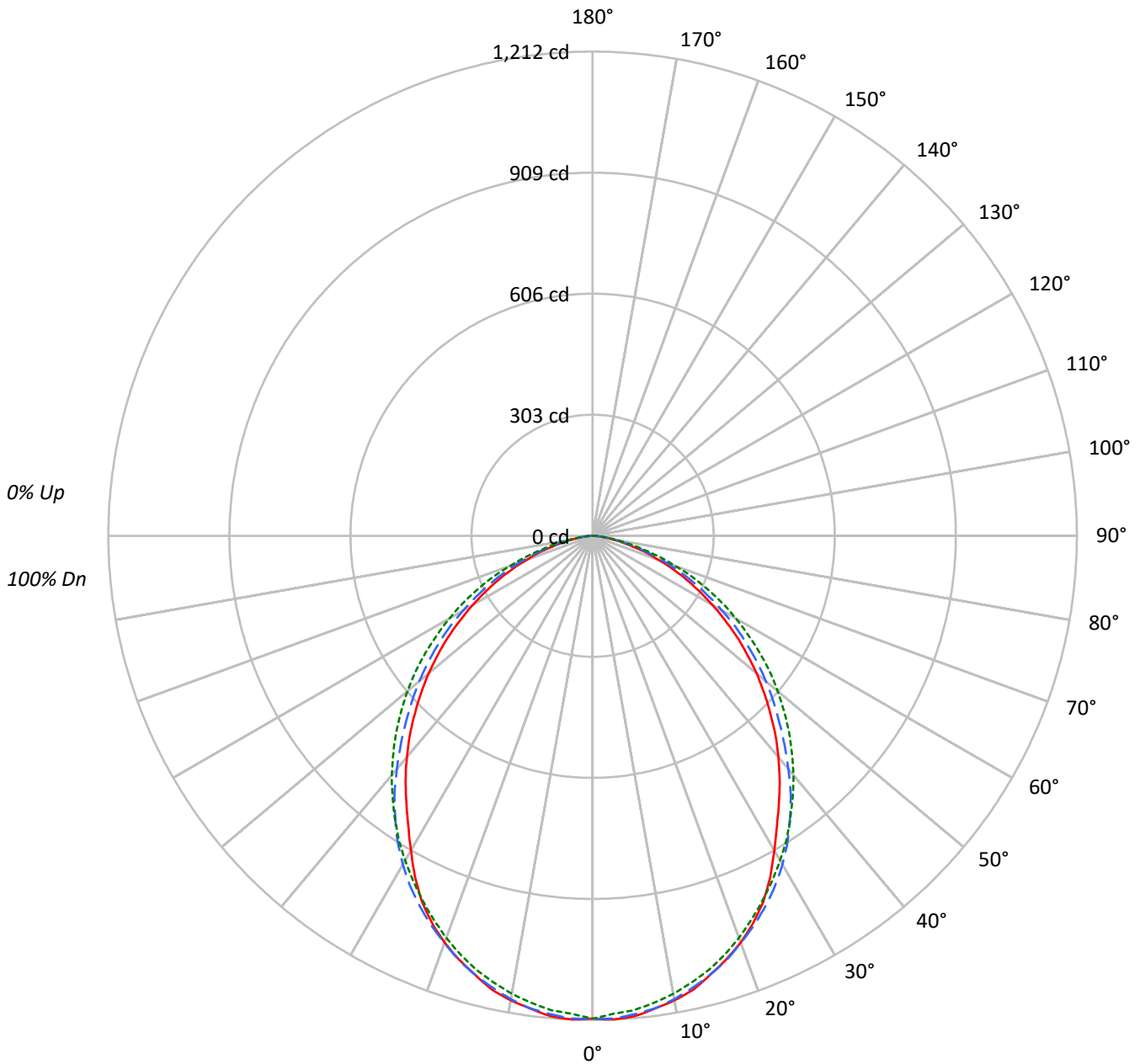
Lumens per Lamp: N/A
Luminaire Lumens: 2795.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3253	3253	3253
5°	3261	3248	3220
10°	3227	3218	3181
15°	3170	3170	3133
20°	3103	3107	3066
25°	3000	3037	2989
30°	2825	2952	2916
35°	2670	2830	2834
40°	2540	2677	2747
45°	2394	2515	2644
50°	2241	2370	2531
55°	2068	2205	2394
60°	1862	2012	2227
65°	1644	1789	2025
70°	1370	1523	1721
75°	1077	1216	1347
80°	770	857	950
85°	503	503	472



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.8	4.1
10°-20°	319.7	11.4
20°-30°	467.2	16.7
30°-40°	530.3	19.0
40°-50°	512.0	18.3
50°-60°	422.3	15.1
60°-70°	281.2	10.1
70°-80°	125.8	4.5
80°-90°	22.5	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°	900.7	32.2
0°-40°	1431.1	51.2
0°-60°	2365.4	84.6
0°-90°	2795.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2795.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1209	1209	1209	1209	1209	
5°	1207	1207	1202	1196	1192	114
15°	1138	1140	1138	1133	1125	321
25°	1010	1018	1023	1016	1007	463
35°	813	824	861	866	863	509
45°	629	640	661	691	695	485
55°	441	448	470	496	510	393
65°	258	265	281	301	318	256
75°	104	109	117	123	130	113
85°	16	16	16	15	15	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1208.8	1208.8	1208.8	1208.8	1208.8
2.5°	1212.0	1212.5	1209.7	1202.3	1197.6
5°	1207.4	1206.9	1202.3	1195.8	1192.0
7.5°	1193.9	1194.8	1193.4	1184.2	1179.0
10°	1180.9	1181.4	1177.7	1170.2	1164.2
12.5°	1164.2	1163.7	1158.6	1154.9	1145.1
15°	1137.7	1140.5	1137.7	1132.6	1124.7
17.5°	1112.2	1112.2	1114.0	1105.2	1099.2
20°	1083.4	1084.8	1084.8	1077.8	1070.8
22.5°	1049.9	1054.1	1055.5	1048.1	1039.7
25°	1010.5	1018.4	1023.0	1015.6	1006.8
27.5°	962.6	974.7	988.7	983.1	973.3
30°	909.2	926.9	950.1	945.5	938.5
32.5°	858.6	876.3	908.3	906.5	902.7
35°	812.7	823.8	861.4	866.1	862.8
37.5°	769.0	779.2	814.5	825.2	822.4
40°	723.0	734.2	762.0	781.1	782.0
42.5°	677.5	688.2	711.0	738.4	738.4
45°	629.2	639.9	660.8	691.0	694.7
47.5°	581.9	593.0	613.4	643.6	649.7
50°	535.4	545.6	566.1	595.3	604.6
52.5°	487.1	498.3	518.2	545.2	558.6
55°	440.7	448.1	469.9	496.0	510.3
57.5°	392.4	399.4	424.0	446.3	461.1
60°	346.0	354.8	373.8	396.6	413.8
62.5°	301.4	310.7	326.9	346.9	366.4
65°	258.2	265.2	280.9	300.9	318.1
67.5°	216.4	222.4	238.2	252.2	270.3
70°	174.1	182.0	193.6	207.1	218.7
72.5°	140.2	143.5	153.2	163.0	175.1
75°	103.6	109.1	117.0	122.6	129.6
77.5°	74.3	77.6	82.2	86.8	93.3
80°	49.7	51.1	55.3	56.2	61.3
82.5°	30.2	31.1	32.0	32.5	34.4
85°	16.3	16.3	16.3	15.3	15.3
87.5°	9.3	9.3	7.9	6.5	4.6
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)