

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: P556692

Luminaire Tested: **FUSL-12-4-LD4-1STD-30-UNV-82-86-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: P556692
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-90
Description: 4FT FUSL SURFACE MOUNT WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

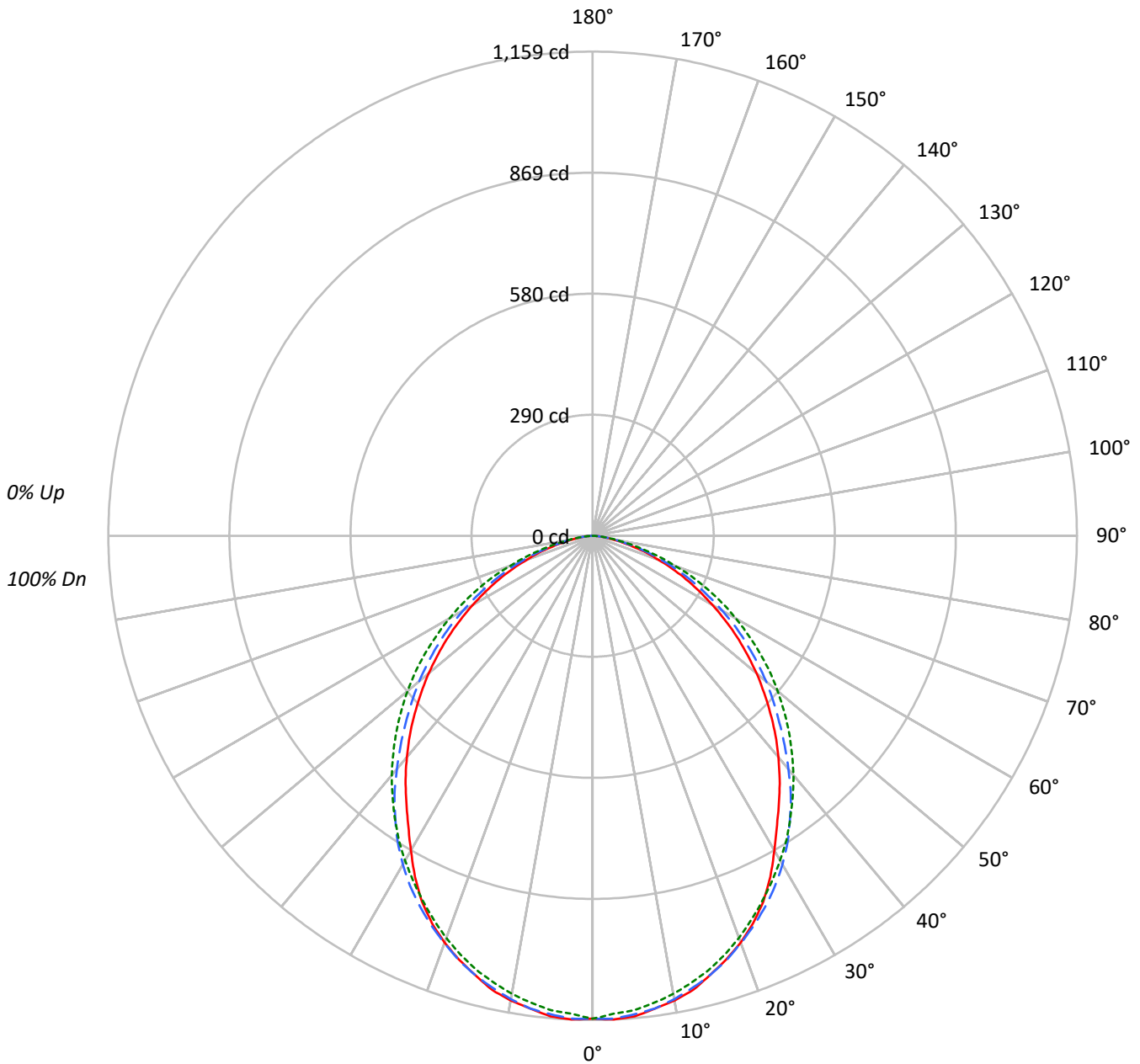
Lumens per Lamp: N/A
Luminaire Lumens: 2673.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	3111	3111	3111
5°	3119	3106	3079
10°	3086	3077	3042
15°	3031	3031	2997
20°	2967	2971	2933
25°	2869	2905	2859
30°	2702	2823	2789
35°	2553	2706	2711
40°	2429	2560	2627
45°	2290	2405	2528
50°	2144	2267	2421
55°	1978	2108	2290
60°	1781	1924	2130
65°	1572	1711	1937
70°	1310	1457	1646
75°	1029	1163	1288
80°	736	818	908
85°	479	479	454



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	4.1
10°-20°	305.8	11.4
20°-30°	446.8	16.7
30°-40°	507.2	19.0
40°-50°	489.6	18.3
50°-60°	403.9	15.1
60°-70°	269.0	10.1
70°-80°	120.4	4.5
80°-90°	21.5	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°	861.4	32.2
0°-40°	1368.6	51.2
0°-60°	2262.1	84.6
0°-90°	2673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1156	1156	1156	1156	1156	
5°	1155	1154	1150	1144	1140	109
15°	1088	1091	1088	1083	1076	307
25°	966	974	978	971	963	443
35°	777	788	824	828	825	487
45°	602	612	632	661	664	464
55°	422	429	449	474	488	376
65°	247	254	269	288	304	245
75°	99	104	112	117	124	108
85°	16	16	16	15	15	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1156.0	1156.0	1156.0	1156.0	1156.0
2.5°	1159.1	1159.6	1156.9	1149.8	1145.3
5°	1154.7	1154.2	1149.8	1143.6	1140.0
7.5°	1141.8	1142.7	1141.3	1132.5	1127.6
10°	1129.4	1129.8	1126.2	1119.1	1113.4
12.5°	1113.4	1112.9	1108.0	1104.5	1095.2
15°	1088.1	1090.7	1088.1	1083.2	1075.6
17.5°	1063.6	1063.6	1065.4	1057.0	1051.2
20°	1036.1	1037.4	1037.4	1030.8	1024.1
22.5°	1004.1	1008.1	1009.4	1002.3	994.3
25°	966.4	973.9	978.4	971.3	962.8
27.5°	920.6	932.2	945.5	940.2	930.8
30°	869.6	886.4	908.6	904.2	897.5
32.5°	821.1	838.0	868.7	866.9	863.3
35°	777.2	787.8	823.8	828.3	825.1
37.5°	735.4	745.2	779.0	789.2	786.5
40°	691.5	702.1	728.8	747.0	747.9
42.5°	647.9	658.2	679.9	706.1	706.1
45°	601.8	612.0	632.0	660.8	664.4
47.5°	556.5	567.1	586.7	615.5	621.3
50°	512.1	521.8	541.4	569.3	578.2
52.5°	465.9	476.5	495.6	521.4	534.3
55°	421.5	428.6	449.4	474.3	488.1
57.5°	375.3	381.9	405.5	426.8	441.0
60°	330.9	339.3	357.5	379.3	395.7
62.5°	288.2	297.1	312.6	331.7	350.4
65°	246.9	253.6	268.7	287.8	304.2
67.5°	207.0	212.7	227.8	241.1	258.5
70°	166.5	174.1	185.2	198.1	209.2
72.5°	134.1	137.2	146.6	155.9	167.4
75°	99.0	104.4	111.9	117.2	123.9
77.5°	71.1	74.2	78.6	83.0	89.3
80°	47.5	48.9	52.8	53.7	58.6
82.5°	28.9	29.8	30.6	31.1	32.9
85°	15.5	15.5	15.5	14.7	14.7
87.5°	8.9	8.9	7.5	6.2	4.4
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)