

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: P556579

Luminaire Tested: **FUSL-12-4-LD4-1LO-40-UNV-93-85-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: P556579
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-LD4-1LO-40-UNV-93-85-EDD
Description: 4FT FUSL SURFACE MOUNT WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

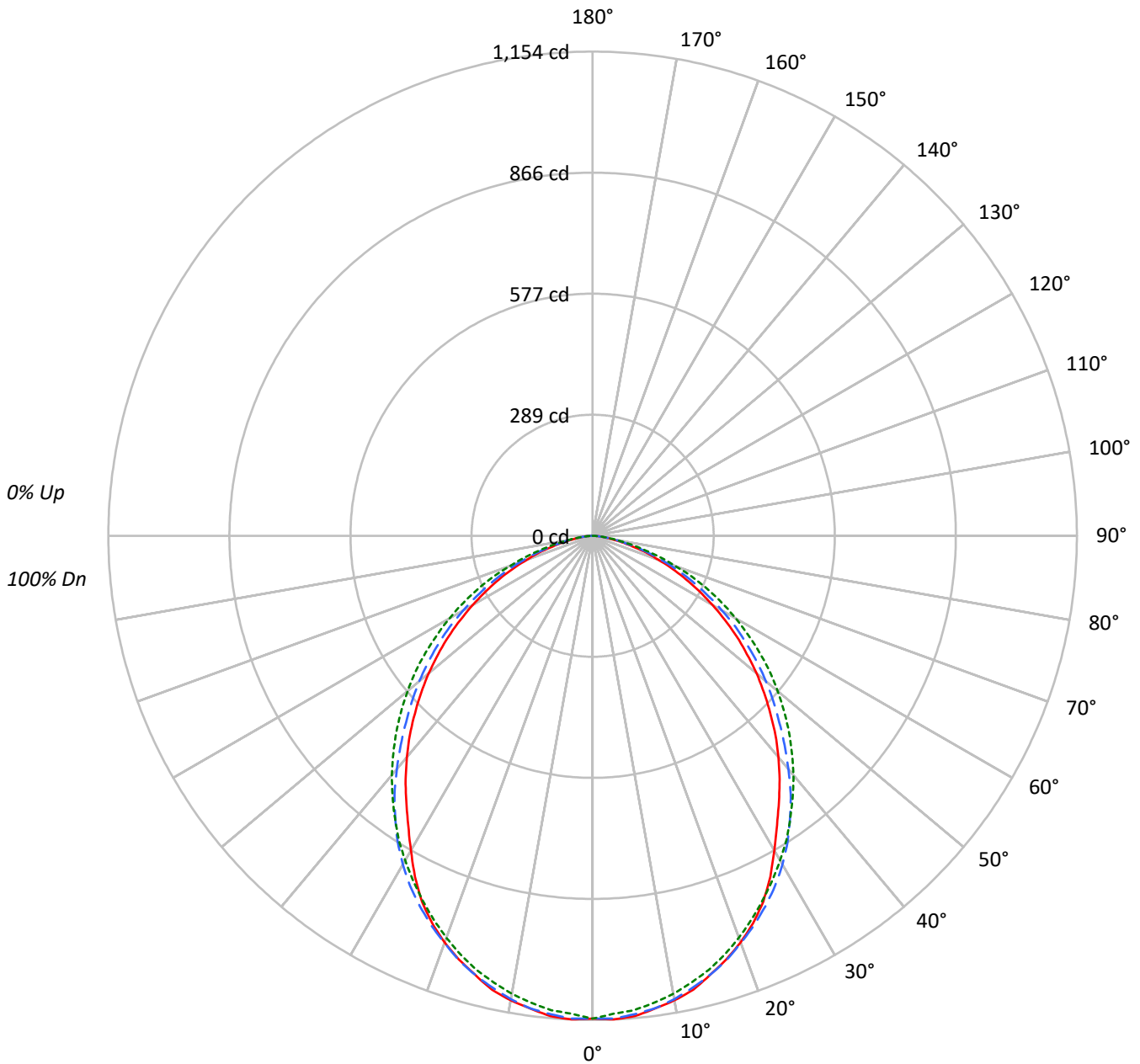
Lumens per Lamp: N/A
Luminaire Lumens: 2661.0 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.16 / 1.26
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.4
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°	3097	3097	3097
5°	3105	3092	3066
10°	3072	3064	3029
15°	3018	3018	2983
20°	2954	2958	2920
25°	2856	2892	2846
30°	2690	2811	2776
35°	2542	2694	2698
40°	2418	2549	2615
45°	2280	2394	2517
50°	2134	2256	2410
55°	1969	2099	2280
60°	1773	1915	2120
65°	1565	1703	1928
70°	1304	1451	1638
75°	1025	1158	1282
80°	733	815	905
85°	479	479	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	4.1
10°-20°	304.4	11.4
20°-30°	444.8	16.7
30°-40°	504.9	19.0
40°-50°	487.4	18.3
50°-60°	402.1	15.1
60°-70°	267.8	10.1
70°-80°	119.8	4.5
80°-90°	21.4	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°	857.6	32.2
0°-40°	1362.5	51.2
0°-60°	2252.0	84.6
0°-90°	2661.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2661.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1150	1149	1145	1138	1135	109
15°	1083	1086	1083	1078	1071	305
25°	962	970	974	967	958	441
35°	774	784	820	824	821	485
45°	599	609	629	658	661	462
55°	420	427	447	472	486	374
65°	246	252	268	286	303	244
75°	99	104	111	117	123	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°	1150.8	1150.8	1150.8	1150.8	1150.8
2.5°	1153.9	1154.4	1151.7	1144.6	1140.2
5°	1149.5	1149.0	1144.6	1138.4	1134.9
7.5°	1136.7	1137.6	1136.2	1127.4	1122.5
10°	1124.3	1124.7	1121.2	1114.1	1108.4
12.5°	1108.4	1107.9	1103.1	1099.5	1090.2
15°	1083.2	1085.8	1083.2	1078.3	1070.8
17.5°	1058.9	1058.9	1060.6	1052.2	1046.5
20°	1031.4	1032.8	1032.8	1026.1	1019.5
22.5°	999.6	1003.6	1004.9	997.8	989.9
25°	962.0	969.5	974.0	966.9	958.5
27.5°	916.5	928.0	941.3	935.9	926.7
30°	865.7	882.5	904.6	900.1	893.5
32.5°	817.5	834.3	864.8	863.0	859.5
35°	773.7	784.3	820.1	824.5	821.4
37.5°	732.1	741.9	775.5	785.6	783.0
40°	688.4	699.0	725.5	743.6	744.5
42.5°	645.0	655.2	676.9	703.0	703.0
45°	599.1	609.2	629.1	657.9	661.4
47.5°	554.0	564.6	584.0	612.8	618.5
50°	509.8	519.5	538.9	566.8	575.6
52.5°	463.8	474.4	493.4	519.0	531.9
55°	419.6	426.6	447.4	472.2	485.9
57.5°	373.6	380.2	403.6	424.9	439.0
60°	329.4	337.8	355.9	377.6	393.9
62.5°	286.9	295.8	311.2	330.3	348.8
65°	245.8	252.4	267.5	286.5	302.8
67.5°	206.0	211.8	226.8	240.1	257.3
70°	165.8	173.3	184.4	197.2	208.2
72.5°	133.5	136.6	145.9	155.2	166.7
75°	98.6	103.9	111.4	116.7	123.3
77.5°	70.7	73.8	78.3	82.7	88.9
80°	47.3	48.6	52.6	53.5	58.4
82.5°	28.7	29.6	30.5	30.9	32.7
85°	15.5	15.5	15.5	14.6	14.6
87.5°	8.8	8.8	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)