

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: P488668

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-35-120-EDD-90**

Issue Date: 3/11/2021

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: P488668
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-115-8)
Test Lab: INNOVATION CENTER
Issue Date: 3/11/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CLM-12-4-INS-A19156-LD4-1STD-35-120-EDD-90
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

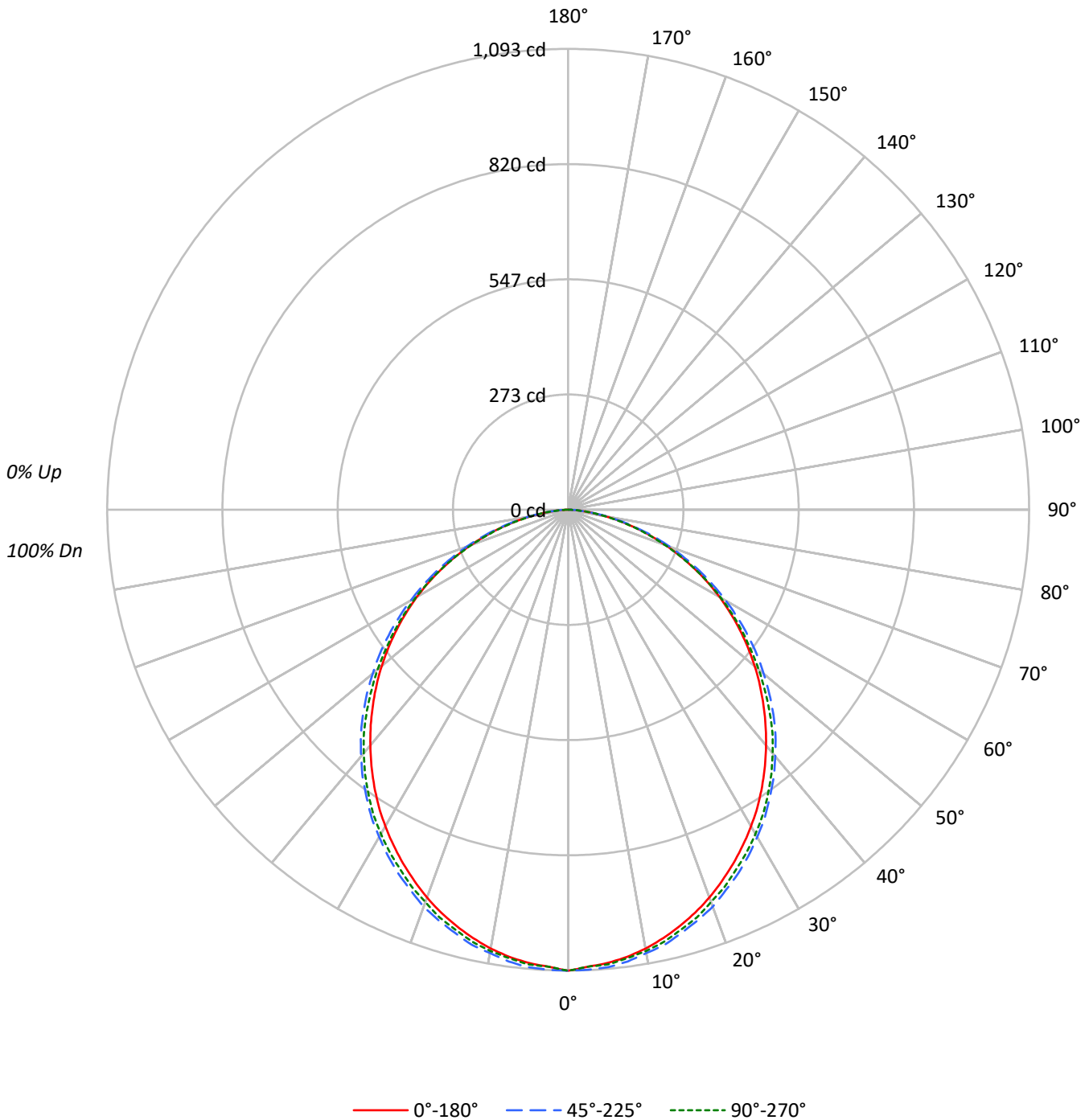
Lumens per Lamp: N/A
Luminaire Lumens: 2874.5 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	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	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2942	2942	2942
5°	2915	2942	2924
10°	2888	2917	2904
15°	2848	2894	2874
20°	2804	2870	2836
25°	2749	2829	2796
30°	2693	2785	2759
35°	2633	2737	2712
40°	2564	2682	2648
45°	2492	2618	2568
50°	2417	2534	2468
55°	2330	2439	2364
60°	2230	2323	2251
65°	2102	2183	2104
70°	1934	2012	1913
75°	1703	1780	1677
80°	1384	1444	1368
85°	963	1028	1003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.0	3.6
10°-20°	291.8	10.2
20°-30°	435.2	15.1
30°-40°	515.7	17.9
40°-50°	521.8	18.2
50°-60°	455.7	15.9
60°-70°	333.0	11.6
70°-80°	177.2	6.2
80°-90°	41.0	1.4
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°	830.0	28.9
0°-40°	1345.7	46.8
0°-60°	2323.3	80.8
0°-90°	2874.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2874.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1079	1081	1089	1092	1082	102
15°	1022	1029	1039	1045	1032	288
25°	926	937	953	956	942	427
35°	801	814	833	839	825	501
45°	655	666	688	688	675	505
55°	497	507	520	512	504	444
65°	330	337	343	336	330	327
75°	164	168	171	165	161	174
85°	31	32	33	34	32	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1093.4	1093.4	1093.4	1093.4	1093.4
2.5°	1084.8	1088.3	1092.0	1093.6	1084.7
5°	1079.1	1081.2	1089.3	1091.8	1082.5
7.5°	1069.8	1072.9	1080.7	1081.9	1073.0
10°	1057.0	1062.5	1067.7	1073.4	1062.6
12.5°	1040.7	1048.1	1057.0	1058.0	1049.8
15°	1022.4	1029.2	1038.9	1045.2	1031.6
17.5°	1001.9	1008.5	1021.0	1022.2	1014.0
20°	979.0	987.2	1002.2	1004.8	990.2
22.5°	953.0	964.1	976.6	979.1	968.3
25°	925.8	937.2	952.7	956.2	941.7
27.5°	897.3	908.2	925.7	928.2	916.0
30°	866.8	877.0	896.2	900.4	888.0
32.5°	835.8	846.0	867.2	870.8	858.7
35°	801.4	813.9	833.2	839.0	825.4
37.5°	766.3	778.5	800.4	805.6	791.0
40°	730.0	742.0	763.6	767.9	753.9
42.5°	692.8	704.9	727.9	728.6	717.0
45°	654.9	666.5	687.9	688.5	674.9
47.5°	616.4	628.1	647.3	645.1	632.3
50°	577.4	588.6	605.3	601.0	589.5
52.5°	537.1	547.9	563.8	556.7	545.9
55°	496.6	506.6	519.8	512.3	503.8
57.5°	455.7	465.8	475.9	468.3	461.0
60°	414.4	423.3	431.6	423.9	418.3
62.5°	372.5	380.1	387.3	379.9	374.7
65°	330.1	336.8	342.8	335.9	330.4
67.5°	288.0	293.7	299.1	292.1	286.3
70°	245.8	250.7	255.7	248.4	243.1
72.5°	204.2	208.6	213.0	206.0	201.3
75°	163.8	167.6	171.2	164.9	161.3
77.5°	125.2	128.4	130.9	126.9	123.4
80°	89.3	91.7	93.2	91.6	88.3
82.5°	57.4	59.1	59.9	59.8	57.6
85°	31.2	31.8	33.3	33.6	32.5
87.5°	12.1	12.9	13.2	14.2	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)