

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: P488450

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2STD-30-120-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: P488450
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-12-2-INS-A19156-LD4-2STD-30-120-EDD-90
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

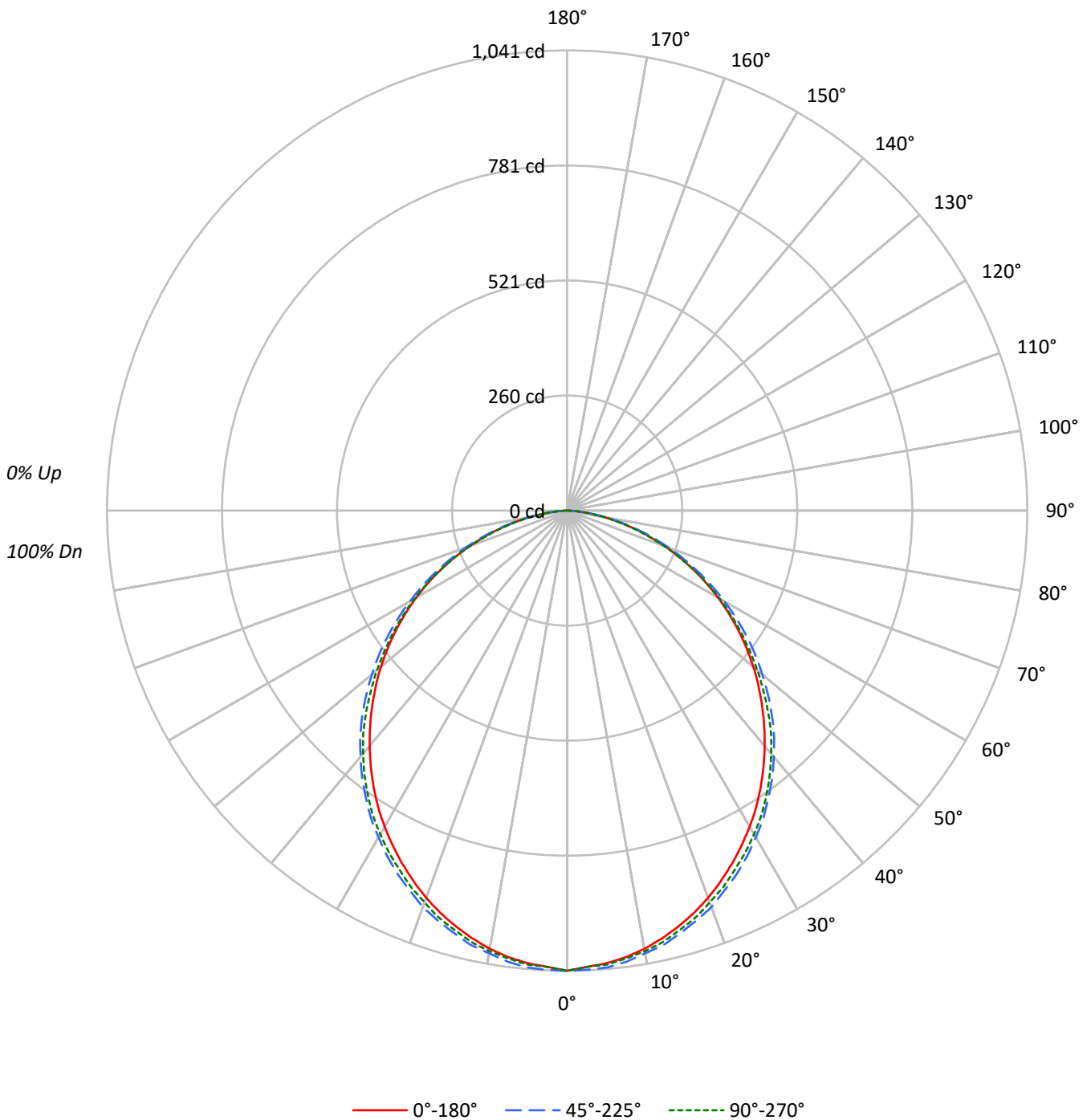
Lumens per Lamp: N/A
Luminaire Lumens: 2737.5 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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									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	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°	5604	5604	5604
5°	5552	5604	5569
10°	5501	5557	5531
15°	5425	5513	5474
20°	5340	5467	5401
25°	5236	5388	5326
30°	5130	5304	5255
35°	5014	5213	5165
40°	4884	5109	5044
45°	4747	4986	4893
50°	4604	4827	4701
55°	4437	4645	4502
60°	4249	4425	4288
65°	4004	4157	4006
70°	3684	3833	3643
75°	3244	3392	3194
80°	2638	2749	2607
85°	1834	1958	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.1	3.6
10°-20°	277.9	10.2
20°-30°	414.5	15.1
30°-40°	491.2	17.9
40°-50°	497.0	18.2
50°-60°	434.0	15.9
60°-70°	317.2	11.6
70°-80°	168.8	6.2
80°-90°	39.0	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°	790.4	28.9
0°-40°	1281.6	46.8
0°-60°	2212.6	80.8
0°-90°	2737.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2737.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1041	1041	1041	1041	1041	
5°	1028	1030	1037	1040	1031	97
15°	974	980	989	995	982	274
25°	882	892	907	911	897	406
35°	763	775	794	799	786	477
45°	624	635	655	656	643	481
55°	473	482	495	488	480	423
65°	314	321	326	320	315	311
75°	156	160	163	157	154	166
85°	30	30	32	32	31	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.2	1041.2	1041.2	1041.2	1041.2
2.5°	1033.1	1036.5	1039.9	1041.5	1033.0
5°	1027.7	1029.6	1037.3	1039.7	1030.9
7.5°	1018.8	1021.7	1029.2	1030.3	1021.8
10°	1006.6	1011.8	1016.8	1022.3	1012.0
12.5°	991.1	998.2	1006.6	1007.6	999.8
15°	973.7	980.2	989.4	995.4	982.4
17.5°	954.1	960.4	972.4	973.4	965.6
20°	932.3	940.1	954.5	957.0	943.0
22.5°	907.6	918.1	930.0	932.4	922.1
25°	881.7	892.5	907.3	910.6	896.9
27.5°	854.5	865.0	881.6	883.9	872.3
30°	825.5	835.2	853.5	857.5	845.6
32.5°	796.0	805.7	825.9	829.3	817.8
35°	763.2	775.1	793.5	799.0	786.1
37.5°	729.8	741.4	762.2	767.2	753.3
40°	695.2	706.7	727.2	731.3	718.0
42.5°	659.8	671.3	693.2	693.9	682.8
45°	623.7	634.8	655.1	655.7	642.8
47.5°	587.0	598.2	616.4	614.4	602.2
50°	549.9	560.5	576.5	572.4	561.4
52.5°	511.5	521.8	536.9	530.2	519.9
55°	472.9	482.4	495.0	487.9	479.8
57.5°	433.9	443.6	453.3	446.0	439.0
60°	394.7	403.1	411.1	403.7	398.4
62.5°	354.7	362.0	368.9	361.8	356.8
65°	314.4	320.8	326.4	319.9	314.6
67.5°	274.3	279.7	284.9	278.2	272.6
70°	234.1	238.8	243.6	236.6	231.5
72.5°	194.5	198.6	202.9	196.1	191.7
75°	156.0	159.6	163.1	157.1	153.6
77.5°	119.2	122.3	124.7	120.9	117.5
80°	85.1	87.3	88.7	87.2	84.1
82.5°	54.7	56.3	57.1	57.0	54.9
85°	29.7	30.3	31.7	32.0	30.9
87.5°	11.5	12.3	12.6	13.6	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)