

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: P489119

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-20-120-EDD**

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: P489119
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-24-2-INS-A19156-LD4-3LO-20-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

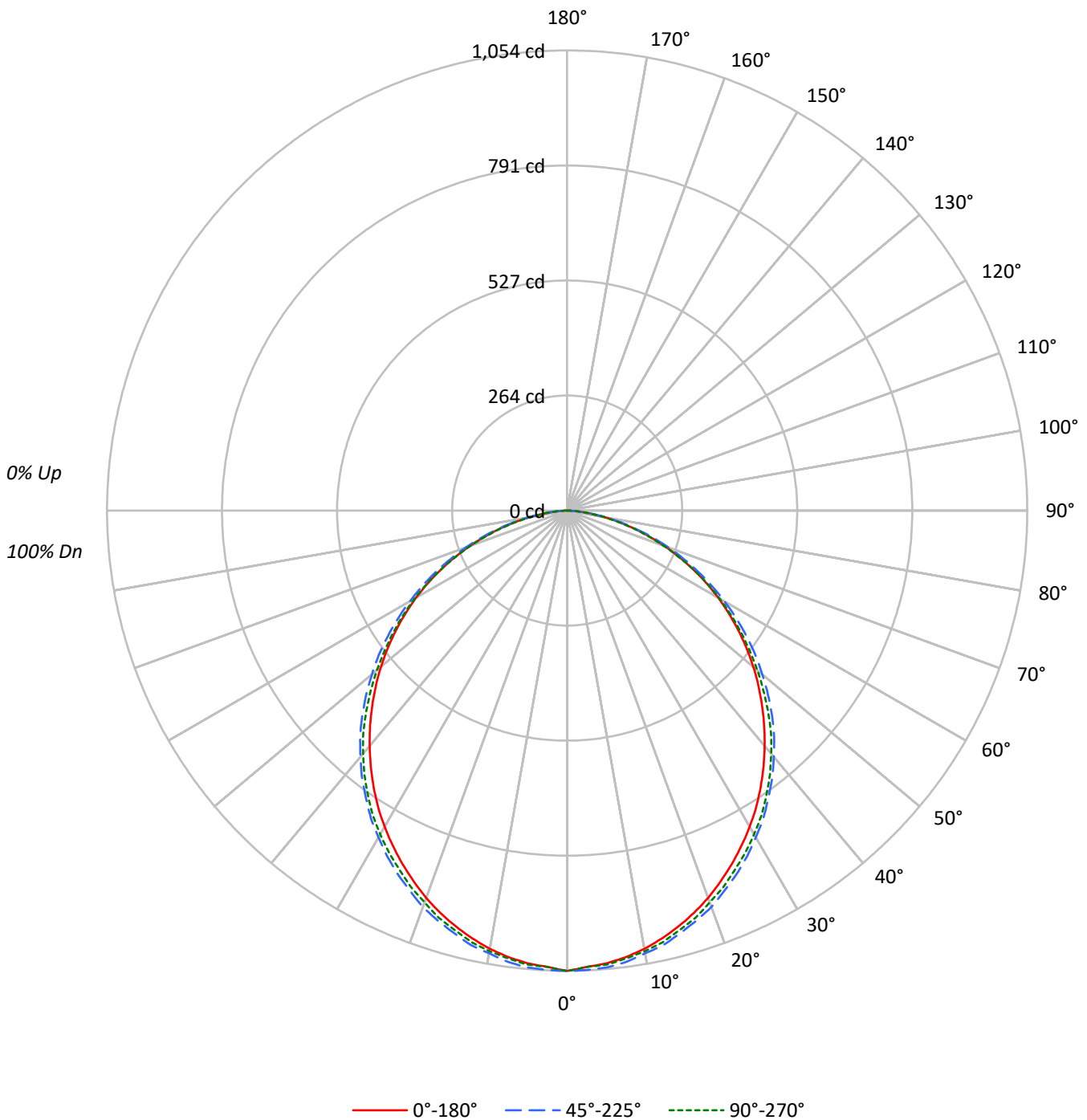
Lumens per Lamp: N/A
Luminaire Lumens: 2772.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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	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°	2837	2837	2837
5°	2811	2837	2820
10°	2785	2814	2800
15°	2747	2791	2771
20°	2704	2768	2734
25°	2651	2728	2697
30°	2597	2685	2661
35°	2539	2640	2615
40°	2473	2586	2554
45°	2403	2525	2477
50°	2331	2444	2380
55°	2246	2352	2280
60°	2151	2240	2171
65°	2027	2104	2029
70°	1865	1940	1844
75°	1643	1717	1618
80°	1334	1393	1319
85°	929	991	966



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.6
10°-20°	281.4	10.2
20°-30°	419.7	15.1
30°-40°	497.3	17.9
40°-50°	503.2	18.2
50°-60°	439.5	15.9
60°-70°	321.2	11.6
70°-80°	170.9	6.2
80°-90°	39.5	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°	800.4	28.9
0°-40°	1297.7	46.8
0°-60°	2240.5	80.8
0°-90°	2772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2772.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1041	1043	1050	1053	1044	99
15°	986	992	1002	1008	995	278
25°	893	904	919	922	908	411
35°	773	785	804	809	796	483
45°	632	643	663	664	651	487
55°	479	488	501	494	486	428
65°	318	325	330	324	319	315
75°	158	162	165	159	156	168
85°	30	31	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°	1054.4	1054.4	1054.4	1054.4	1054.4
2.5°	1046.1	1049.5	1053.1	1054.6	1046.0
5°	1040.6	1042.6	1050.4	1052.8	1043.9
7.5°	1031.6	1034.6	1042.2	1043.3	1034.7
10°	1019.3	1024.6	1029.7	1035.1	1024.7
12.5°	1003.6	1010.8	1019.3	1020.3	1012.4
15°	985.9	992.5	1001.9	1007.9	994.8
17.5°	966.2	972.5	984.6	985.7	977.8
20°	944.1	952.0	966.5	969.0	954.8
22.5°	919.0	929.7	941.8	944.2	933.8
25°	892.8	903.8	918.7	922.1	908.2
27.5°	865.3	875.9	892.7	895.1	883.3
30°	835.9	845.8	864.2	868.3	856.3
32.5°	806.0	815.9	836.3	839.7	828.1
35°	772.8	784.9	803.5	809.1	796.0
37.5°	739.0	750.7	771.8	776.9	762.8
40°	703.9	715.6	736.3	740.5	727.0
42.5°	668.1	679.8	702.0	702.6	691.4
45°	631.5	642.8	663.4	664.0	650.9
47.5°	594.4	605.7	624.2	622.1	609.8
50°	556.8	567.6	583.8	579.6	568.5
52.5°	518.0	528.4	543.7	536.9	526.4
55°	478.8	488.5	501.3	494.0	485.9
57.5°	439.4	449.2	459.0	451.6	444.6
60°	399.6	408.2	416.2	408.8	403.4
62.5°	359.2	366.6	373.5	366.4	361.3
65°	318.4	324.8	330.5	324.0	318.6
67.5°	277.7	283.2	288.5	281.7	276.1
70°	237.1	241.8	246.6	239.6	234.4
72.5°	197.0	201.1	205.4	198.6	194.1
75°	158.0	161.6	165.1	159.1	155.6
77.5°	120.7	123.8	126.2	122.4	119.0
80°	86.1	88.4	89.9	88.3	85.1
82.5°	55.4	57.0	57.8	57.7	55.6
85°	30.1	30.6	32.1	32.4	31.3
87.5°	11.6	12.4	12.7	13.7	12.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)