

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: P489693

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4HI-50-120-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: P489693
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-24-4-INS-A19156-LD4-4HI-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

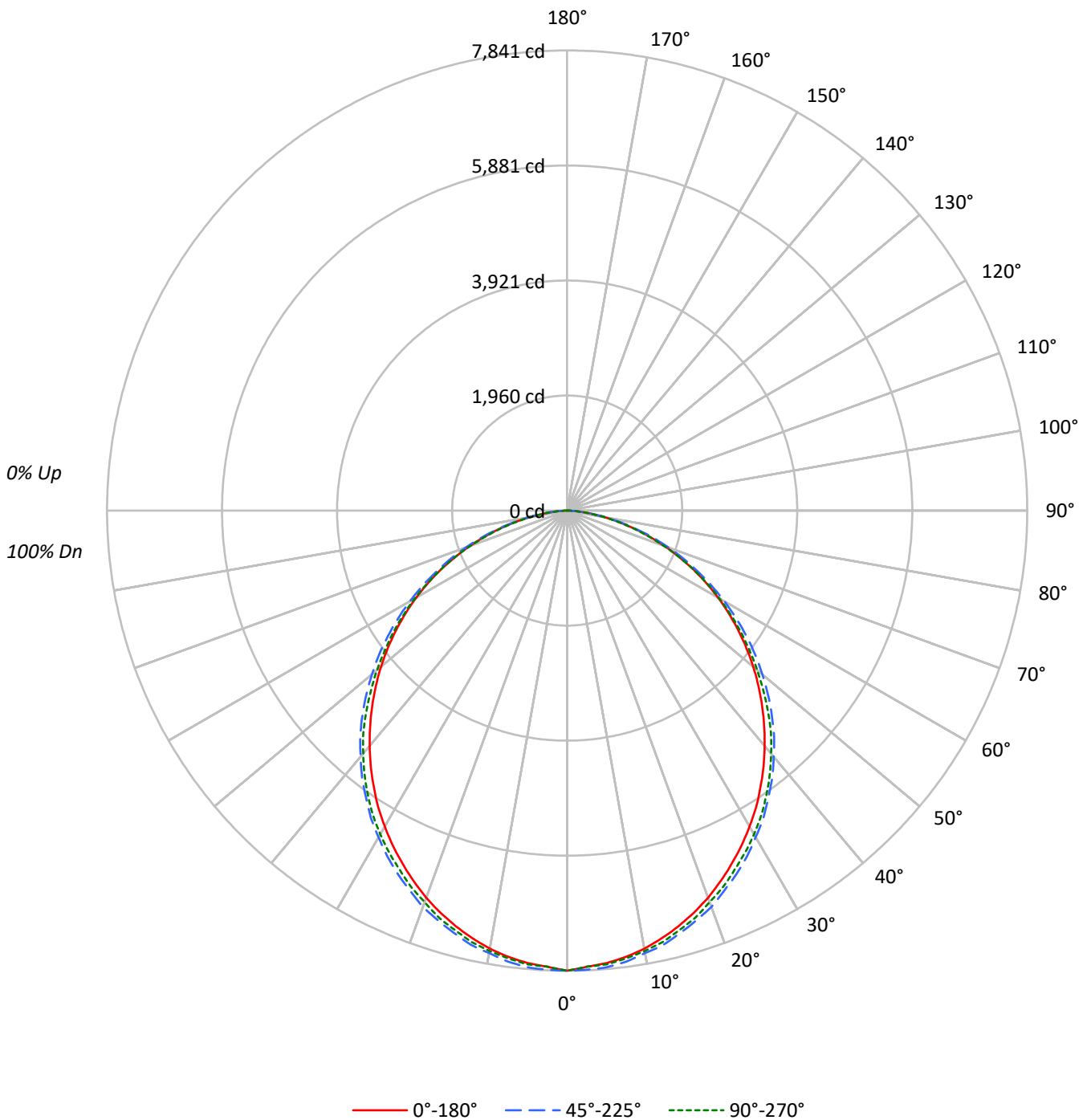
Lumens per Lamp: N/A
Luminaire Lumens: 20613.9 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 172.8
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°	10550	10550	10550
5°	10452	10550	10485
10°	10356	10461	10411
15°	10213	10378	10305
20°	10052	10291	10167
25°	9856	10143	10026
30°	9657	9985	9893
35°	9440	9814	9723
40°	9194	9618	9496
45°	8937	9387	9210
50°	8668	9087	8849
55°	8353	8744	8476
60°	7998	8329	8072
65°	7537	7826	7543
70°	6935	7215	6858
75°	6107	6383	6014
80°	4963	5177	4905
85°	3455	3682	3594



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	738.4	3.6
10°-20°	2092.6	10.2
20°-30°	3121.0	15.1
30°-40°	3698.4	17.9
40°-50°	3742.3	18.2
50°-60°	3268.3	15.9
60°-70°	2388.3	11.6
70°-80°	1270.8	6.2
80°-90°	293.7	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
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0°-30°	5952.1	28.9
0°-40°	9650.5	46.8
0°-60°	16661.1	80.8
0°-90°	20613.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20613.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7841	7841	7841	7841	7841	
5°	7739	7753	7811	7829	7763	734
15°	7332	7381	7450	7495	7398	2067
25°	6639	6721	6832	6857	6754	3059
35°	5747	5837	5975	6017	5919	3594
45°	4696	4780	4933	4938	4840	3623
55°	3561	3633	3728	3674	3613	3183
65°	2367	2416	2458	2409	2369	2343
75°	1175	1202	1228	1183	1157	1249
85°	224	228	238	241	233	283
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7840.8	7840.8	7840.8	7840.8	7840.8
2.5°	7779.5	7804.8	7831.0	7842.4	7778.7
5°	7738.7	7753.4	7811.4	7829.4	7763.2
7.5°	7671.7	7693.7	7750.1	7758.3	7694.6
10°	7580.2	7619.4	7657.0	7697.8	7620.2
12.5°	7463.4	7516.5	7580.2	7587.5	7528.7
15°	7331.9	7380.9	7450.3	7495.2	7398.0
17.5°	7184.8	7232.2	7322.1	7330.2	7271.4
20°	7020.6	7079.4	7187.3	7206.0	7100.7
22.5°	6834.3	6913.6	7003.5	7021.4	6943.8
25°	6639.1	6720.8	6831.9	6857.2	6753.5
27.5°	6434.9	6513.3	6638.3	6656.3	6568.9
30°	6215.9	6289.5	6426.7	6456.9	6367.9
32.5°	5993.7	6067.3	6219.2	6244.5	6157.9
35°	5747.0	5836.9	5974.9	6016.6	5919.4
37.5°	5495.4	5582.8	5739.7	5777.3	5672.7
40°	5234.8	5321.4	5475.8	5506.9	5406.4
42.5°	4968.5	5055.1	5220.1	5225.0	5141.7
45°	4696.5	4779.8	4933.4	4937.5	4840.2
47.5°	4420.4	4504.5	4641.7	4626.2	4534.7
50°	4141.0	4221.0	4341.1	4310.1	4227.6
52.5°	3851.8	3929.4	4042.9	3992.3	3914.7
55°	3561.0	3632.8	3727.6	3673.7	3613.2
57.5°	3267.7	3340.4	3413.1	3358.4	3306.1
60°	2972.0	3035.7	3095.3	3039.8	2999.7
62.5°	2671.3	2726.1	2777.5	2724.4	2686.8
65°	2367.4	2415.6	2458.1	2409.1	2369.1
67.5°	2065.2	2106.0	2145.2	2094.6	2052.9
70°	1762.9	1798.0	1834.0	1781.7	1743.3
72.5°	1464.7	1495.8	1527.6	1477.0	1443.5
75°	1174.7	1201.7	1227.8	1182.9	1156.8
77.5°	897.8	920.7	938.6	910.0	884.7
80°	640.5	657.6	668.2	656.8	633.1
82.5°	411.7	424.0	429.7	428.9	413.4
85°	223.8	227.9	238.5	241.0	232.8
87.5°	86.6	92.3	94.8	102.1	93.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)