

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: P489675

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3STD-30-120-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: P489675
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-LD4-3STD-30-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

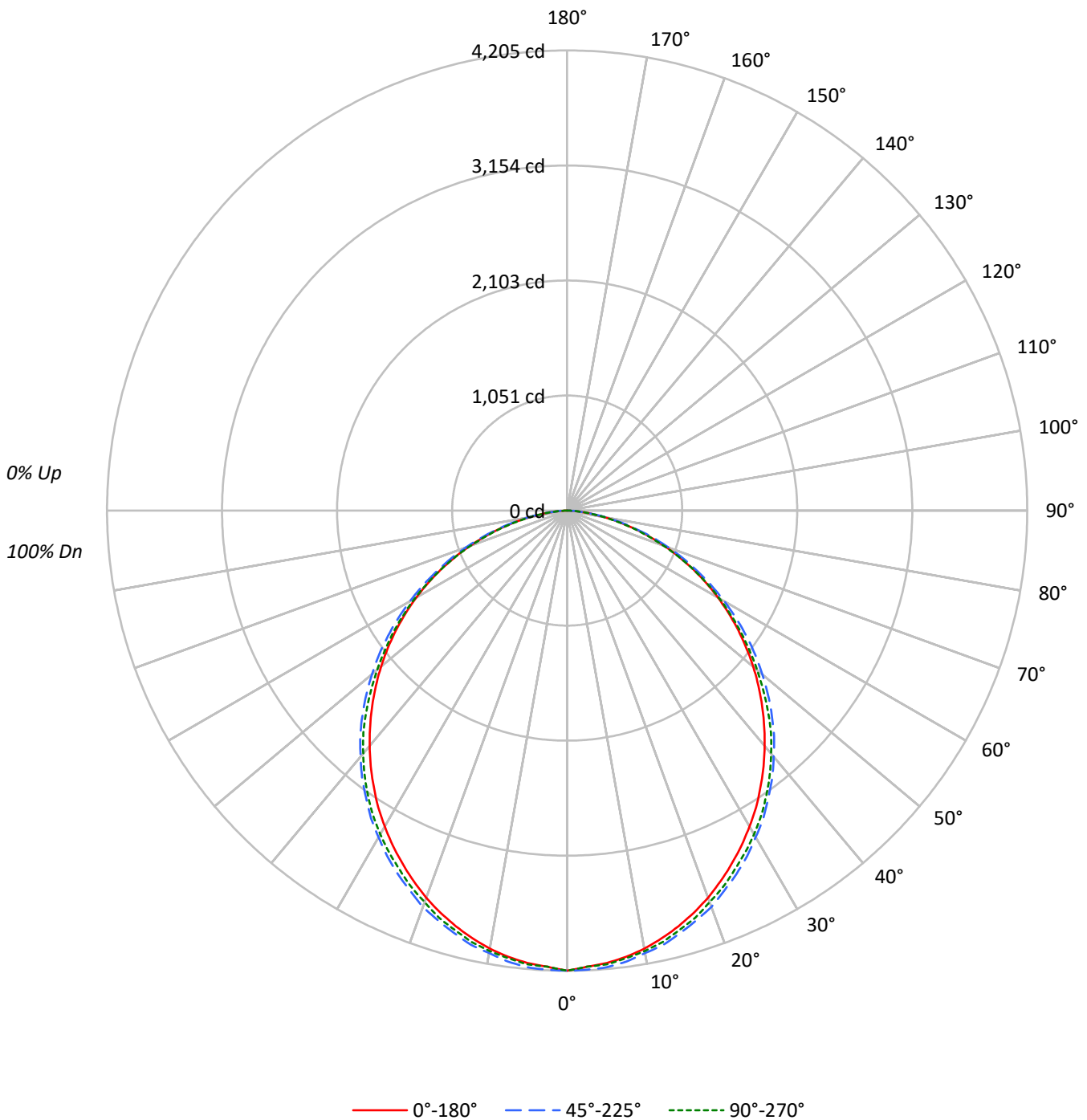
Lumens per Lamp: N/A
Luminaire Lumens: 11054.5 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 99.9
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°	5657	5657	5657
5°	5605	5658	5623
10°	5554	5610	5583
15°	5477	5565	5526
20°	5391	5519	5452
25°	5286	5439	5377
30°	5179	5354	5306
35°	5062	5263	5214
40°	4931	5158	5092
45°	4792	5034	4939
50°	4648	4873	4746
55°	4480	4689	4545
60°	4289	4467	4329
65°	4042	4197	4045
70°	3719	3869	3678
75°	3275	3423	3225
80°	2662	2777	2631
85°	1853	1974	1928



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	396.0	3.6
10°-20°	1122.2	10.2
20°-30°	1673.7	15.1
30°-40°	1983.3	17.9
40°-50°	2006.8	18.2
50°-60°	1752.7	15.9
60°-70°	1280.8	11.6
70°-80°	681.5	6.2
80°-90°	157.5	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°	3191.9	28.9
0°-40°	5175.2	46.8
0°-60°	8934.7	80.8
0°-90°	11054.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11054.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4205	4205	4205	4205	4205	
5°	4150	4158	4189	4199	4163	394
15°	3932	3958	3995	4019	3967	1108
25°	3560	3604	3664	3677	3622	1640
35°	3082	3130	3204	3226	3174	1927
45°	2518	2563	2646	2648	2596	1943
55°	1910	1948	1999	1970	1938	1707
65°	1270	1295	1318	1292	1270	1256
75°	630	644	658	634	620	670
85°	120	122	128	129	125	152
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4204.7	4204.7	4204.7	4204.7	4204.7
2.5°	4171.9	4185.5	4199.5	4205.6	4171.4
5°	4150.0	4157.9	4189.0	4198.6	4163.1
7.5°	4114.1	4125.9	4156.1	4160.5	4126.3
10°	4065.0	4086.0	4106.2	4128.1	4086.5
12.5°	4002.3	4030.8	4065.0	4068.9	4037.4
15°	3931.8	3958.1	3995.3	4019.4	3967.3
17.5°	3853.0	3878.4	3926.6	3930.9	3899.4
20°	3764.9	3796.4	3854.3	3864.3	3807.8
22.5°	3665.0	3707.5	3755.7	3765.3	3723.7
25°	3560.3	3604.1	3663.7	3677.3	3621.6
27.5°	3450.8	3492.9	3559.9	3569.5	3522.6
30°	3333.4	3372.8	3446.4	3462.6	3414.9
32.5°	3214.2	3253.7	3335.1	3348.7	3302.3
35°	3081.9	3130.1	3204.2	3226.5	3174.4
37.5°	2947.0	2993.9	3078.0	3098.1	3042.1
40°	2807.2	2853.7	2936.5	2953.1	2899.2
42.5°	2664.4	2710.9	2799.4	2802.0	2757.3
45°	2518.5	2563.2	2645.6	2647.8	2595.7
47.5°	2370.5	2415.6	2489.2	2480.9	2431.8
50°	2220.7	2263.6	2328.0	2311.3	2267.1
52.5°	2065.6	2107.2	2168.1	2140.9	2099.3
55°	1909.6	1948.2	1999.0	1970.1	1937.6
57.5°	1752.3	1791.3	1830.3	1801.0	1772.9
60°	1593.8	1627.9	1659.9	1630.1	1608.6
62.5°	1432.5	1461.9	1489.5	1461.0	1440.9
65°	1269.6	1295.4	1318.2	1291.9	1270.4
67.5°	1107.5	1129.4	1150.4	1123.2	1100.9
70°	945.4	964.2	983.5	955.5	934.9
72.5°	785.5	802.1	819.2	792.1	774.1
75°	630.0	644.4	658.4	634.3	620.3
77.5°	481.5	493.7	503.4	488.0	474.4
80°	343.5	352.7	358.4	352.2	339.5
82.5°	220.8	227.4	230.4	230.0	221.7
85°	120.0	122.2	127.9	129.2	124.9
87.5°	46.4	49.5	50.8	54.8	50.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)