

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: P489619

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2HI-40-120-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: P489619
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-LD4-2HI-40-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

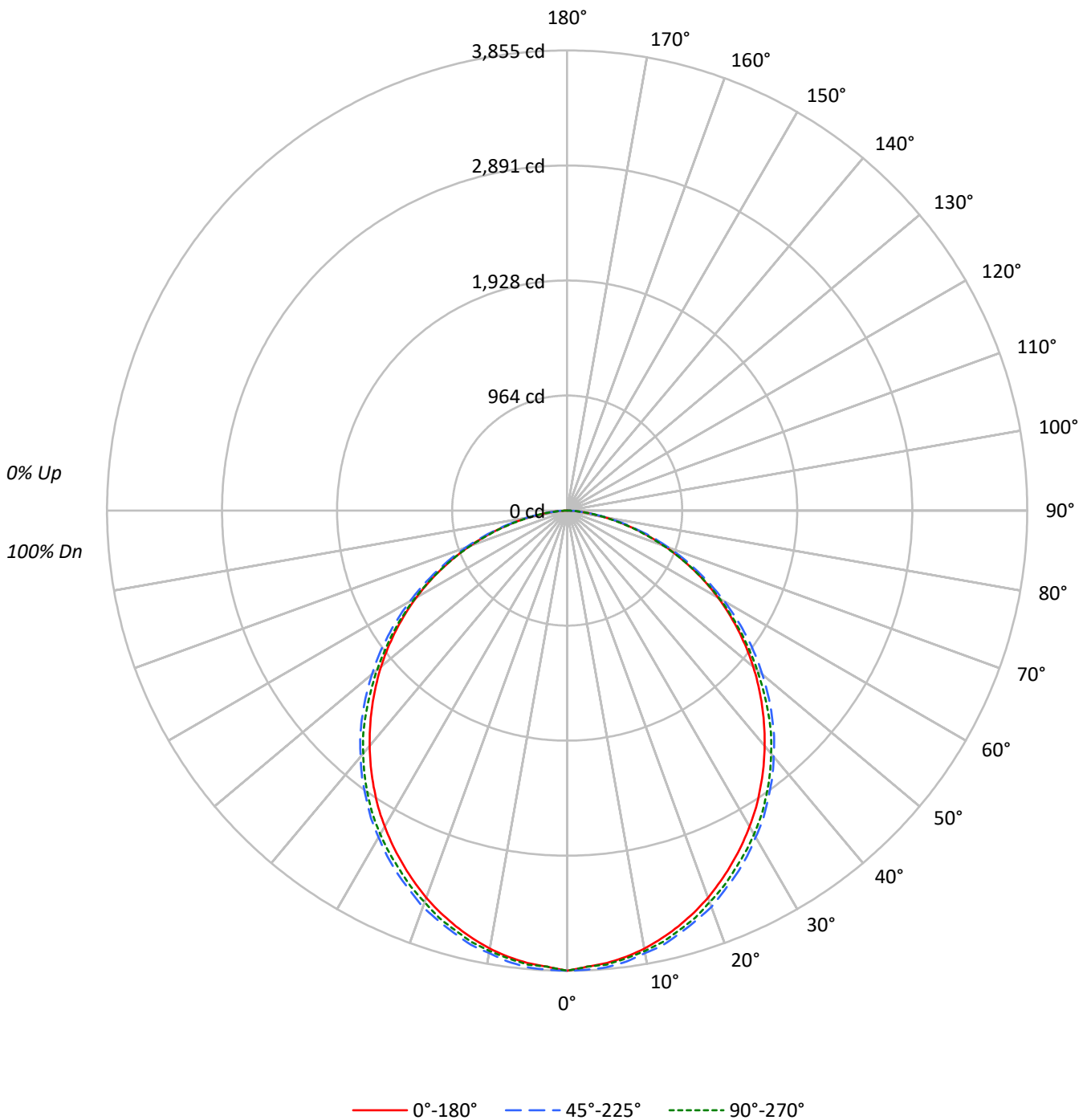
Lumens per Lamp: N/A
Luminaire Lumens: 10135.0 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 86.4
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

TEST NUMBER: P489619

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-40-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489619

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-40-120-EDD

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°	5187	5187	5187
5°	5139	5187	5155
10°	5092	5143	5119
15°	5021	5102	5067
20°	4942	5060	4999
25°	4846	4987	4929
30°	4748	4909	4864
35°	4641	4825	4780
40°	4520	4729	4669
45°	4394	4615	4528
50°	4262	4468	4351
55°	4107	4299	4167
60°	3932	4095	3969
65°	3706	3848	3708
70°	3410	3547	3372
75°	3003	3138	2956
80°	2440	2545	2412
85°	1700	1811	1768



TEST NUMBER: P489619

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-40-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.1	3.6
10°-20°	1028.8	10.2
20°-30°	1534.5	15.1
30°-40°	1818.4	17.9
40°-50°	1839.9	18.2
50°-60°	1606.9	15.9
60°-70°	1174.3	11.6
70°-80°	624.8	6.2
80°-90°	144.4	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°	2926.4	28.9
0°-40°	4744.7	46.8
0°-60°	8191.5	80.8
0°-90°	10135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10135.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3855	3855	3855	3855	3855	
5°	3805	3812	3840	3849	3817	361
15°	3605	3629	3663	3685	3637	1016
25°	3264	3304	3359	3371	3320	1504
35°	2826	2870	2938	2958	2910	1767
45°	2309	2350	2426	2428	2380	1781
55°	1751	1786	1833	1806	1776	1565
65°	1164	1188	1209	1184	1165	1152
75°	578	591	604	582	569	614
85°	110	112	117	118	114	139
90°	0	0	0	0	0	



TEST NUMBER: P489619

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-40-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3855.0	3855.0	3855.0	3855.0	3855.0
2.5°	3824.9	3837.3	3850.2	3855.8	3824.5
5°	3804.8	3812.0	3840.5	3849.4	3816.8
7.5°	3771.9	3782.7	3810.4	3814.4	3783.1
10°	3726.9	3746.1	3764.6	3784.7	3746.5
12.5°	3669.4	3695.5	3726.9	3730.5	3701.6
15°	3604.8	3628.9	3663.0	3685.1	3637.3
17.5°	3532.5	3555.8	3599.9	3604.0	3575.0
20°	3451.7	3480.7	3533.7	3542.9	3491.1
22.5°	3360.2	3399.1	3443.3	3452.1	3414.0
25°	3264.2	3304.3	3359.0	3371.4	3320.4
27.5°	3163.8	3202.3	3263.8	3272.6	3229.6
30°	3056.1	3092.3	3159.7	3174.6	3130.8
32.5°	2946.9	2983.0	3057.7	3070.2	3027.6
35°	2825.6	2869.8	2937.6	2958.1	2910.3
37.5°	2701.9	2744.8	2822.0	2840.4	2789.0
40°	2573.7	2616.3	2692.2	2707.5	2658.1
42.5°	2442.8	2485.4	2566.5	2568.9	2528.0
45°	2309.1	2350.0	2425.5	2427.5	2379.7
47.5°	2173.3	2214.7	2282.1	2274.5	2229.5
50°	2035.9	2075.3	2134.3	2119.1	2078.5
52.5°	1893.8	1931.9	1987.7	1962.8	1924.7
55°	1750.8	1786.1	1832.7	1806.2	1776.5
57.5°	1606.6	1642.3	1678.1	1651.2	1625.5
60°	1461.2	1492.5	1521.8	1494.5	1474.8
62.5°	1313.4	1340.3	1365.6	1339.5	1321.0
65°	1164.0	1187.7	1208.6	1184.5	1164.8
67.5°	1015.4	1035.4	1054.7	1029.8	1009.3
70°	866.8	884.0	901.7	876.0	857.1
72.5°	720.2	735.4	751.1	726.2	709.7
75°	577.6	590.8	603.7	581.6	568.7
77.5°	441.4	452.7	461.5	447.4	435.0
80°	314.9	323.3	328.5	322.9	311.3
82.5°	202.4	208.5	211.3	210.9	203.2
85°	110.1	112.1	117.3	118.5	114.5
87.5°	42.6	45.4	46.6	50.2	46.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)