

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: P489692

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4HI-50-120-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: P489692
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-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

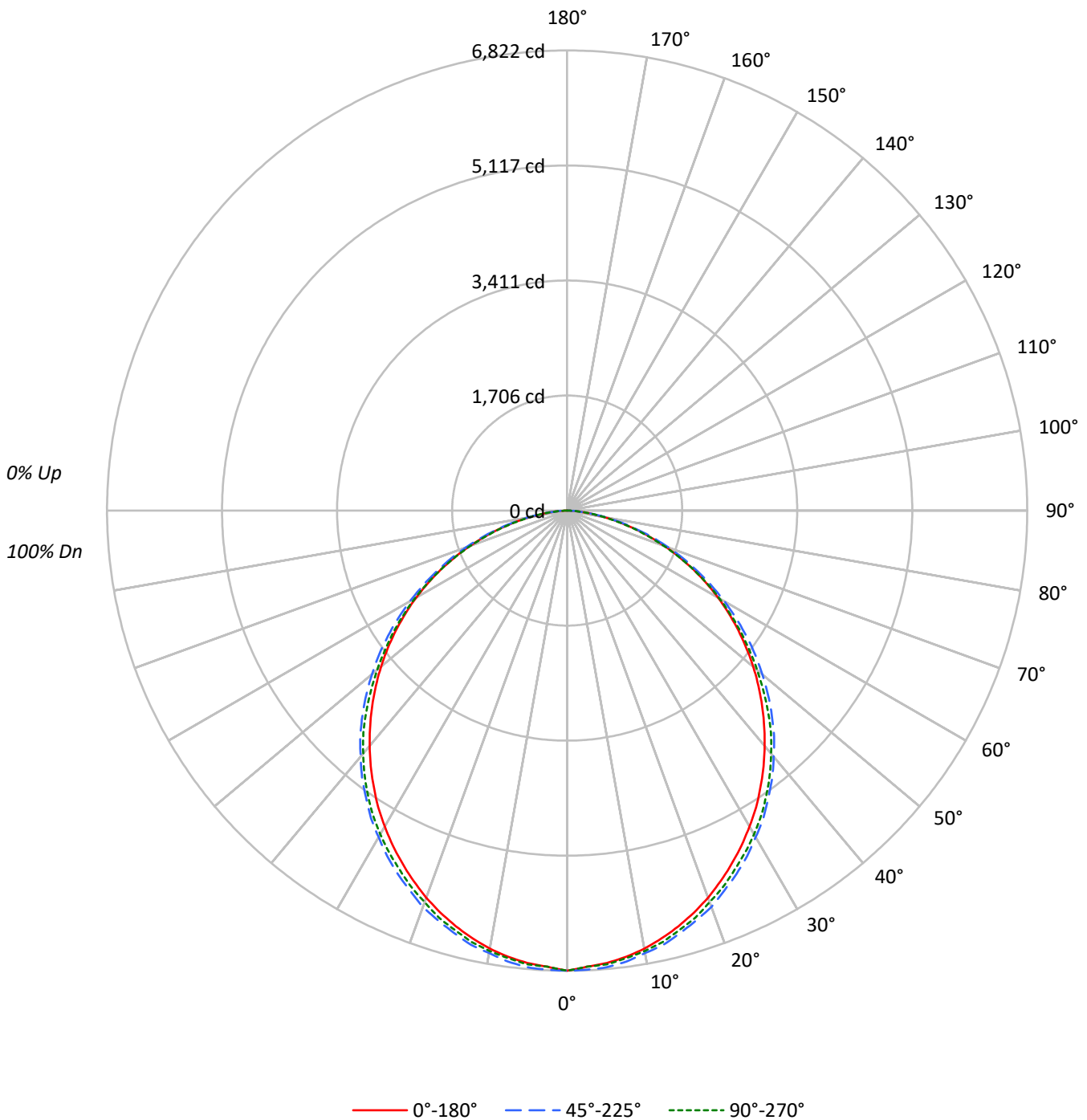
Lumens per Lamp: N/A
Luminaire Lumens: 17934.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P489692

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4HI-50-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489692

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4HI-50-120-EDD-90

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°	9178	9178	9178
5°	9093	9179	9122
10°	9010	9101	9058
15°	8885	9029	8965
20°	8746	8953	8845
25°	8575	8824	8723
30°	8402	8687	8607
35°	8213	8538	8459
40°	7999	8368	8261
45°	7775	8167	8013
50°	7541	7906	7699
55°	7267	7607	7374
60°	6958	7247	7023
65°	6557	6809	6562
70°	6033	6277	5967
75°	5313	5553	5232
80°	4317	4505	4268
85°	3006	3203	3128



TEST NUMBER: P489692

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4HI-50-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	642.4	3.6
10°-20°	1820.6	10.2
20°-30°	2715.3	15.1
30°-40°	3217.6	17.9
40°-50°	3255.8	18.2
50°-60°	2843.4	15.9
60°-70°	2077.9	11.6
70°-80°	1105.6	6.2
80°-90°	255.5	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°	5178.3	28.9
0°-40°	8395.9	46.8
0°-60°	14495.1	80.8
0°-90°	17934.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17934.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6822	6822	6822	6822	6822	
5°	6733	6745	6796	6812	6754	638
15°	6379	6421	6482	6521	6436	1798
25°	5776	5847	5944	5966	5876	2661
35°	5000	5078	5198	5234	5150	3127
45°	4086	4158	4292	4296	4211	3152
55°	3098	3161	3243	3196	3144	2769
65°	2060	2102	2139	2096	2061	2038
75°	1022	1046	1068	1029	1006	1087
85°	195	198	208	210	203	247
90°	0	0	0	0	0	



TEST NUMBER: P489692

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-4HI-50-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6821.5	6821.5	6821.5	6821.5	6821.5
2.5°	6768.2	6790.2	6813.0	6822.9	6767.5
5°	6732.7	6745.4	6795.9	6811.5	6754.0
7.5°	6674.4	6693.6	6742.6	6749.7	6694.3
10°	6594.8	6628.9	6661.6	6697.1	6629.6
12.5°	6493.1	6539.3	6594.8	6601.2	6550.0
15°	6378.7	6421.4	6481.8	6520.9	6436.3
17.5°	6250.8	6292.0	6370.2	6377.3	6326.1
20°	6107.9	6159.1	6252.9	6269.3	6177.6
22.5°	5945.9	6014.8	6093.0	6108.6	6041.1
25°	5776.0	5847.1	5943.8	5965.8	5875.5
27.5°	5598.3	5666.6	5775.3	5790.9	5714.9
30°	5407.9	5471.8	5591.2	5617.5	5540.1
32.5°	5214.6	5278.5	5410.7	5432.7	5357.4
35°	4999.9	5078.1	5198.2	5234.5	5149.9
37.5°	4781.0	4857.1	4993.5	5026.2	4935.2
40°	4554.3	4629.6	4764.0	4791.0	4703.5
42.5°	4322.6	4397.9	4541.5	4545.8	4473.3
45°	4085.9	4158.4	4292.0	4295.6	4211.0
47.5°	3845.7	3918.9	4038.3	4024.8	3945.2
50°	3602.6	3672.3	3776.8	3749.8	3678.0
52.5°	3351.0	3418.6	3517.4	3473.3	3405.8
55°	3098.0	3160.6	3243.0	3196.1	3143.5
57.5°	2842.9	2906.1	2969.4	2921.8	2876.3
60°	2585.6	2641.0	2692.9	2644.6	2609.8
62.5°	2324.1	2371.7	2416.4	2370.3	2337.6
65°	2059.7	2101.6	2138.6	2095.9	2061.1
67.5°	1796.7	1832.2	1866.4	1822.3	1786.0
70°	1533.7	1564.3	1595.6	1550.1	1516.7
72.5°	1274.3	1301.3	1329.0	1285.0	1255.8
75°	1022.0	1045.5	1068.2	1029.1	1006.4
77.5°	781.1	801.0	816.6	791.7	769.7
80°	557.2	572.1	581.4	571.4	550.8
82.5°	358.2	368.9	373.8	373.1	359.6
85°	194.7	198.3	207.5	209.7	202.6
87.5°	75.3	80.3	82.4	88.8	81.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)