

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: P489750

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-5STD-40-120-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: P489750
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-LD4-5STD-40-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

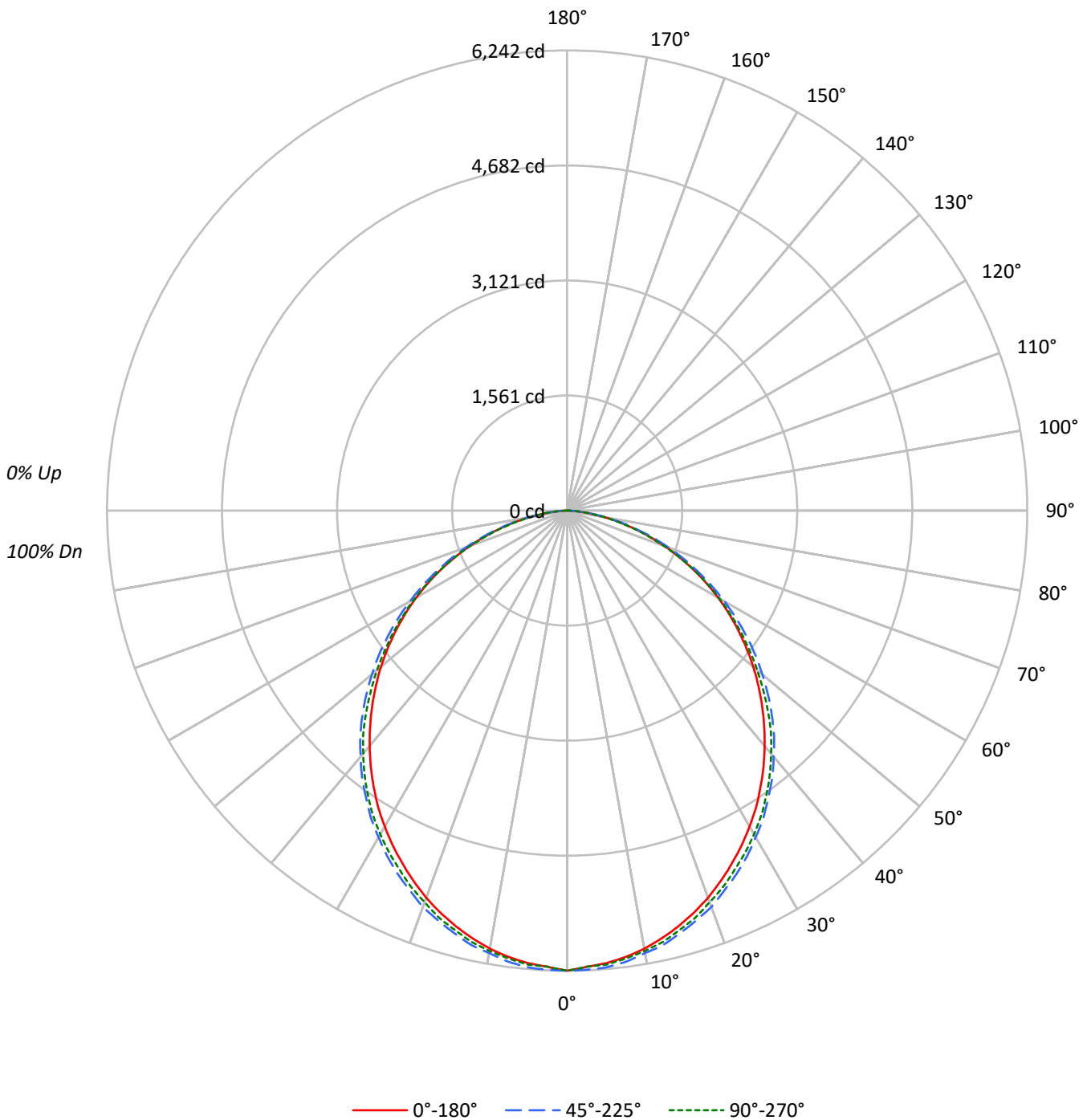
Lumens per Lamp: N/A
Luminaire Lumens: 16410.5 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 166.5
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: P489750

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-5STD-40-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489750

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-5STD-40-120-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°	8399	8399	8399
5°	8321	8399	8347
10°	8245	8328	8288
15°	8130	8262	8204
20°	8003	8193	8094
25°	7846	8074	7982
30°	7688	7949	7876
35°	7515	7813	7740
40°	7320	7657	7560
45°	7114	7473	7332
50°	6900	7234	7045
55°	6650	6961	6748
60°	6367	6631	6426
65°	6000	6230	6004
70°	5521	5744	5460
75°	4862	5082	4787
80°	3951	4122	3905
85°	2751	2932	2861



TEST NUMBER: P489750

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-5STD-40-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	587.9	3.6
10°-20°	1665.9	10.2
20°-30°	2484.6	15.1
30°-40°	2944.3	17.9
40°-50°	2979.2	18.2
50°-60°	2601.9	15.9
60°-70°	1901.3	11.6
70°-80°	1011.7	6.2
80°-90°	233.8	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°	4738.4	28.9
0°-40°	7682.7	46.8
0°-60°	13263.7	80.8
0°-90°	16410.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16410.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6242	6242	6242	6242	6242	
5°	6161	6172	6219	6233	6180	584
15°	5837	5876	5931	5967	5890	1645
25°	5285	5350	5439	5459	5376	2435
35°	4575	4647	4757	4790	4712	2861
45°	3739	3805	3927	3931	3853	2884
55°	2835	2892	2968	2925	2876	2534
65°	1885	1923	1957	1918	1886	1865
75°	935	957	978	942	921	994
85°	178	181	190	192	185	226
90°	0	0	0	0	0	



TEST NUMBER: P489750

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-5STD-40-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6242.0	6242.0	6242.0	6242.0	6242.0
2.5°	6193.2	6213.4	6234.2	6243.3	6192.5
5°	6160.7	6172.4	6218.6	6232.9	6180.2
7.5°	6107.3	6124.9	6169.8	6176.3	6125.6
10°	6034.5	6065.7	6095.6	6128.2	6066.4
12.5°	5941.5	5983.8	6034.5	6040.4	5993.5
15°	5836.8	5875.8	5931.1	5966.9	5889.5
17.5°	5719.7	5757.5	5829.0	5835.5	5788.7
20°	5589.0	5635.9	5721.7	5736.7	5652.8
22.5°	5440.8	5503.8	5575.4	5589.7	5527.9
25°	5285.3	5350.4	5438.8	5459.0	5376.4
27.5°	5122.7	5185.2	5284.7	5299.0	5229.4
30°	4948.4	5007.0	5116.2	5140.3	5069.4
32.5°	4771.5	4830.1	4951.0	4971.2	4902.3
35°	4575.1	4646.7	4756.6	4789.8	4712.4
37.5°	4374.8	4444.4	4569.3	4599.2	4516.0
40°	4167.4	4236.3	4359.2	4383.9	4304.0
42.5°	3955.4	4024.3	4155.7	4159.6	4093.2
45°	3738.8	3805.1	3927.4	3930.7	3853.3
47.5°	3519.0	3586.0	3695.2	3682.9	3610.0
50°	3296.6	3360.3	3455.9	3431.2	3365.5
52.5°	3066.4	3128.1	3218.5	3178.2	3116.4
55°	2834.8	2892.1	2967.5	2924.6	2876.5
57.5°	2601.4	2659.2	2717.1	2673.6	2631.9
60°	2365.9	2416.7	2464.1	2419.9	2388.1
62.5°	2126.6	2170.2	2211.2	2168.9	2139.0
65°	1884.7	1923.1	1956.9	1917.9	1886.0
67.5°	1644.1	1676.6	1707.8	1667.5	1634.3
70°	1403.4	1431.4	1460.0	1418.4	1387.8
72.5°	1166.1	1190.8	1216.1	1175.8	1149.2
75°	935.2	956.7	977.5	941.7	920.9
77.5°	714.7	732.9	747.2	724.5	704.3
80°	509.9	523.5	532.0	522.9	504.0
82.5°	327.8	337.5	342.1	341.4	329.1
85°	178.2	181.4	189.9	191.9	185.3
87.5°	68.9	73.5	75.4	81.3	74.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)