

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: P489681

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-3STD-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: P489681
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-50-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

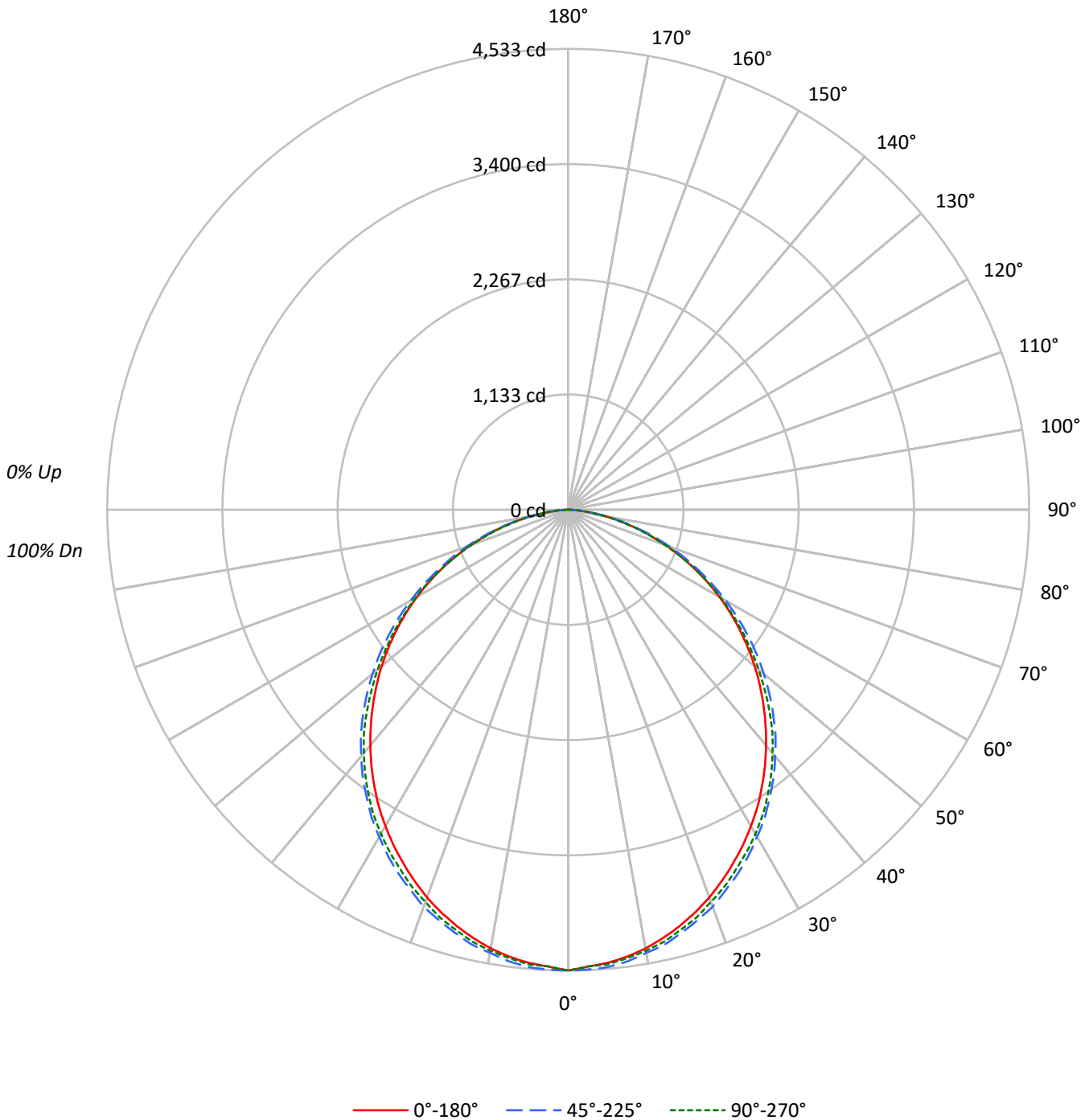
Lumens per Lamp: N/A
Luminaire Lumens: 11917.4 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P489681

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-3STD-50-120-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P489681

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-3STD-50-120-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°	6099	6099	6099
5°	6043	6099	6062
10°	5987	6048	6019
15°	5904	6000	5958
20°	5812	5949	5878
25°	5698	5864	5796
30°	5583	5772	5720
35°	5457	5674	5621
40°	5316	5560	5490
45°	5166	5427	5325
50°	5011	5253	5116
55°	4829	5055	4900
60°	4624	4816	4667
65°	4358	4524	4360
70°	4009	4171	3965
75°	3530	3690	3477
80°	2869	2993	2836
85°	1998	2129	2078



TEST NUMBER: P489681

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-3STD-50-120-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	426.9	3.6
10°-20°	1209.8	10.2
20°-30°	1804.3	15.1
30°-40°	2138.2	17.9
40°-50°	2163.5	18.2
50°-60°	1889.5	15.9
60°-70°	1380.8	11.6
70°-80°	734.7	6.2
80°-90°	169.8	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°	3441.0	28.9
0°-40°	5579.2	46.8
0°-60°	9632.2	80.8
0°-90°	11917.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11917.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4533	4533	4533	4533	4533	
5°	4474	4482	4516	4526	4488	424
15°	4239	4267	4307	4333	4277	1195
25°	3838	3886	3950	3964	3904	1768
35°	3322	3374	3454	3478	3422	2078
45°	2715	2763	2852	2854	2798	2095
55°	2059	2100	2155	2124	2089	1840
65°	1369	1396	1421	1393	1370	1354
75°	679	695	710	684	669	722
85°	129	132	138	139	135	164
90°	0	0	0	0	0	



TEST NUMBER: P489681

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-3STD-50-120-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4533.0	4533.0	4533.0	4533.0	4533.0
2.5°	4497.5	4512.2	4527.3	4533.9	4497.1
5°	4473.9	4482.4	4516.0	4526.3	4488.1
7.5°	4435.2	4447.9	4480.5	4485.3	4448.4
10°	4382.3	4405.0	4426.7	4450.3	4405.4
12.5°	4314.8	4345.5	4382.3	4386.5	4352.5
15°	4238.7	4267.1	4307.2	4333.2	4277.0
17.5°	4153.7	4181.1	4233.1	4237.8	4203.8
20°	4058.8	4092.8	4155.1	4166.0	4105.1
22.5°	3951.1	3996.9	4048.9	4059.3	4014.4
25°	3838.2	3885.5	3949.7	3964.3	3904.3
27.5°	3720.2	3765.5	3837.8	3848.1	3797.6
30°	3593.6	3636.1	3715.4	3732.9	3681.4
32.5°	3465.1	3507.6	3595.5	3610.1	3560.1
35°	3322.5	3374.4	3454.3	3478.4	3422.1
37.5°	3177.0	3227.6	3318.2	3340.0	3279.5
40°	3026.4	3076.4	3165.7	3183.6	3125.6
42.5°	2872.4	2922.5	3017.9	3020.7	2972.5
45°	2715.1	2763.3	2852.1	2854.5	2798.3
47.5°	2555.5	2604.2	2683.5	2674.5	2621.6
50°	2394.0	2440.3	2509.7	2491.8	2444.1
52.5°	2226.8	2271.7	2337.3	2308.0	2263.2
55°	2058.7	2100.2	2155.0	2123.8	2088.9
57.5°	1889.1	1931.2	1973.2	1941.5	1911.3
60°	1718.2	1755.0	1789.5	1757.4	1734.2
62.5°	1544.4	1576.0	1605.8	1575.1	1553.3
65°	1368.7	1396.5	1421.1	1392.8	1369.6
67.5°	1193.9	1217.5	1240.2	1210.9	1186.8
70°	1019.2	1039.5	1060.3	1030.0	1007.8
72.5°	846.8	864.7	883.2	853.9	834.5
75°	679.1	694.7	709.8	683.9	668.8
77.5°	519.0	532.3	542.7	526.1	511.5
80°	370.3	380.2	386.3	379.7	366.0
82.5°	238.0	245.1	248.4	247.9	239.0
85°	129.4	131.8	137.9	139.3	134.6
87.5°	50.1	53.4	54.8	59.0	54.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)