

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: P489617

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2HI-35-120-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: P489617
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-35-120-EDD
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

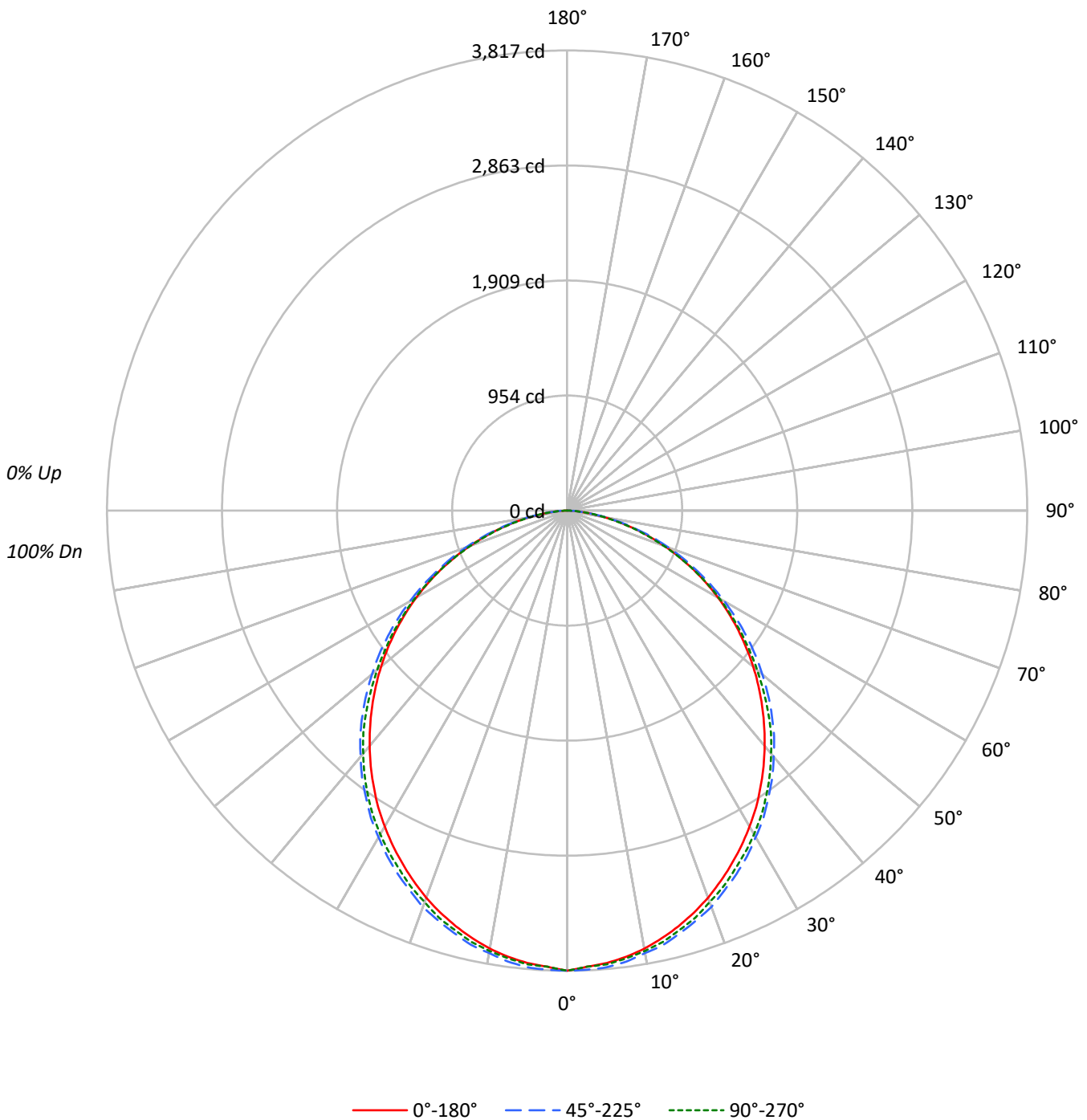
Lumens per Lamp: N/A
Luminaire Lumens: 10034.7 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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: P489617

CATALOG NUMBER: CLM-24-4-INS-A19156-LD4-2HI-35-120-EDD

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°	5135	5135	5135
5°	5088	5136	5104
10°	5041	5093	5068
15°	4972	5052	5016
20°	4893	5010	4949
25°	4798	4937	4881
30°	4701	4861	4816
35°	4595	4777	4733
40°	4476	4682	4623
45°	4350	4570	4483
50°	4219	4423	4308
55°	4066	4257	4126
60°	3893	4055	3929
65°	3669	3810	3671
70°	3376	3512	3338
75°	2973	3107	2927
80°	2416	2521	2388
85°	1683	1792	1749



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	359.5	3.6
10°-20°	1018.7	10.2
20°-30°	1519.3	15.1
30°-40°	1800.4	17.9
40°-50°	1821.7	18.2
50°-60°	1591.0	15.9
60°-70°	1162.6	11.6
70°-80°	618.6	6.2
80°-90°	143.0	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°	2897.4	28.9
0°-40°	4697.8	46.8
0°-60°	8110.5	80.8
0°-90°	10034.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10034.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3817	3817	3817	3817	3817	
5°	3767	3774	3802	3811	3779	357
15°	3569	3593	3627	3649	3601	1006
25°	3232	3272	3326	3338	3288	1489
35°	2798	2841	2909	2929	2882	1750
45°	2286	2327	2402	2404	2356	1764
55°	1733	1768	1815	1788	1759	1550
65°	1152	1176	1197	1173	1153	1140
75°	572	585	598	576	563	608
85°	109	111	116	117	113	138
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3816.8	3816.8	3816.8	3816.8	3816.8
2.5°	3787.0	3799.3	3812.1	3817.6	3786.6
5°	3767.1	3774.3	3802.5	3811.3	3779.1
7.5°	3734.5	3745.3	3772.7	3776.7	3745.7
10°	3690.0	3709.1	3727.4	3747.3	3709.5
12.5°	3633.1	3659.0	3690.0	3693.6	3664.9
15°	3569.1	3593.0	3626.8	3648.6	3601.3
17.5°	3497.5	3520.6	3564.3	3568.3	3539.7
20°	3417.6	3446.2	3498.7	3507.9	3456.6
22.5°	3326.9	3365.5	3409.2	3418.0	3380.2
25°	3231.9	3271.6	3325.7	3338.0	3287.5
27.5°	3132.5	3170.6	3231.5	3240.2	3197.7
30°	3025.9	3061.7	3128.5	3143.2	3099.8
32.5°	2917.7	2953.5	3027.5	3039.8	2997.6
35°	2797.6	2841.4	2908.6	2928.8	2881.5
37.5°	2675.1	2717.7	2794.0	2812.3	2761.4
40°	2548.3	2590.4	2665.6	2680.7	2631.8
42.5°	2418.6	2460.8	2541.1	2543.5	2502.9
45°	2286.2	2326.8	2401.5	2403.5	2356.2
47.5°	2151.8	2192.8	2259.6	2252.0	2207.5
50°	2015.8	2054.8	2113.2	2098.1	2057.9
52.5°	1875.0	1912.8	1968.1	1943.4	1905.6
55°	1733.4	1768.4	1814.6	1788.3	1758.9
57.5°	1590.7	1626.1	1661.5	1634.8	1609.4
60°	1446.7	1477.7	1506.8	1479.7	1460.2
62.5°	1300.4	1327.0	1352.1	1326.2	1307.9
65°	1152.4	1175.9	1196.6	1172.7	1153.2
67.5°	1005.3	1025.2	1044.3	1019.6	999.3
70°	858.2	875.3	892.8	867.3	848.6
72.5°	713.0	728.1	743.6	719.0	702.7
75°	571.9	585.0	597.7	575.8	563.1
77.5°	437.0	448.2	456.9	443.0	430.7
80°	311.8	320.1	325.3	319.7	308.2
82.5°	200.4	206.4	209.2	208.8	201.2
85°	109.0	111.0	116.1	117.3	113.3
87.5°	42.2	44.9	46.1	49.7	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)