

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: P489700

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-4LO-35-120-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: P489700
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-LD4-4LO-35-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

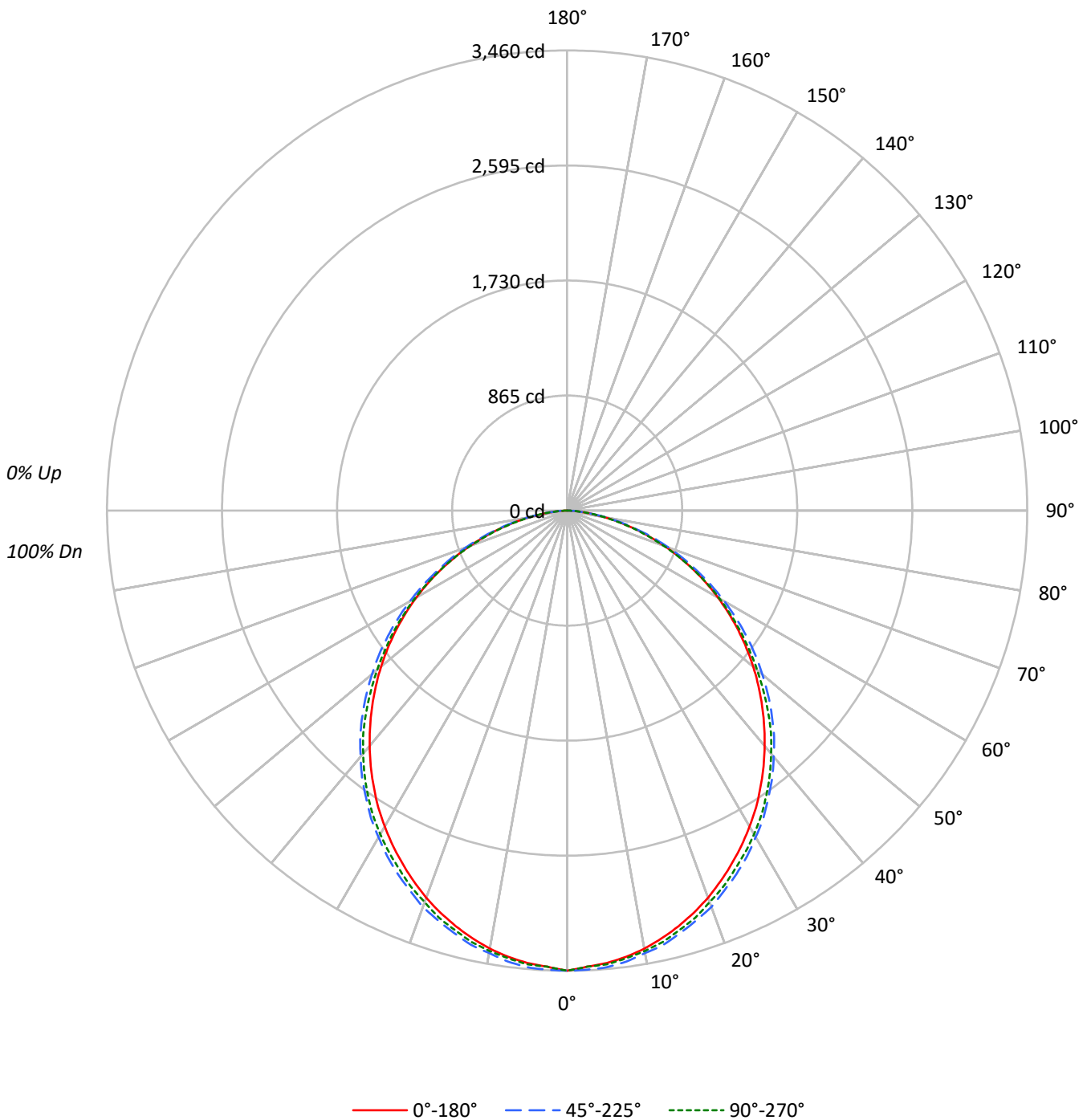
Lumens per Lamp: N/A
Luminaire Lumens: 9096.2 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 93.6
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

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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°	4655	4655	4655
5°	4612	4655	4627
10°	4570	4616	4594
15°	4507	4579	4547
20°	4436	4541	4486
25°	4349	4476	4424
30°	4261	4406	4366
35°	4165	4331	4290
40°	4057	4244	4190
45°	3943	4142	4064
50°	3825	4010	3905
55°	3686	3859	3740
60°	3529	3676	3562
65°	3326	3453	3328
70°	3060	3184	3026
75°	2695	2817	2653
80°	2190	2285	2165
85°	1525	1626	1585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.9	3.6
10°-20°	923.4	10.2
20°-30°	1377.2	15.1
30°-40°	1632.0	17.9
40°-50°	1651.3	18.2
50°-60°	1442.2	15.9
60°-70°	1053.9	11.6
70°-80°	560.8	6.2
80°-90°	129.6	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°	2626.4	28.9
0°-40°	4258.4	46.8
0°-60°	7352.0	80.8
0°-90°	9096.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9096.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3460	3460	3460	3460	3460	
5°	3415	3421	3447	3455	3426	324
15°	3235	3257	3288	3307	3264	912
25°	2930	2966	3015	3026	2980	1350
35°	2536	2576	2636	2655	2612	1586
45°	2072	2109	2177	2179	2136	1599
55°	1571	1603	1645	1621	1594	1405
65°	1045	1066	1085	1063	1045	1034
75°	518	530	542	522	510	551
85°	99	101	105	106	103	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3459.9	3459.9	3459.9	3459.9	3459.9
2.5°	3432.8	3444.0	3455.5	3460.6	3432.5
5°	3414.8	3421.3	3446.9	3454.8	3425.6
7.5°	3385.3	3395.0	3419.9	3423.5	3395.3
10°	3344.9	3362.2	3378.8	3396.8	3362.5
12.5°	3293.3	3316.8	3344.9	3348.1	3322.2
15°	3235.3	3256.9	3287.6	3307.4	3264.5
17.5°	3170.4	3191.3	3231.0	3234.6	3208.6
20°	3098.0	3123.9	3171.5	3179.8	3133.3
22.5°	3015.8	3050.7	3090.4	3098.3	3064.1
25°	2929.6	2965.7	3014.7	3025.9	2980.1
27.5°	2839.5	2874.1	2929.2	2937.2	2898.6
30°	2742.9	2775.3	2835.9	2849.2	2809.9
32.5°	2644.8	2677.3	2744.3	2755.5	2717.3
35°	2536.0	2575.6	2636.5	2654.9	2612.0
37.5°	2424.9	2463.5	2532.7	2549.3	2503.2
40°	2309.9	2348.2	2416.3	2430.0	2385.6
42.5°	2192.4	2230.6	2303.5	2305.6	2268.9
45°	2072.4	2109.2	2176.9	2178.7	2135.8
47.5°	1950.5	1987.7	2048.2	2041.4	2001.0
50°	1827.3	1862.6	1915.6	1901.9	1865.5
52.5°	1699.7	1733.9	1784.0	1761.7	1727.4
55°	1571.3	1603.0	1644.9	1621.1	1594.4
57.5°	1441.9	1474.0	1506.1	1481.9	1458.9
60°	1311.4	1339.5	1365.9	1341.3	1323.7
62.5°	1178.8	1202.9	1225.6	1202.2	1185.6
65°	1044.7	1065.9	1084.7	1063.1	1045.4
67.5°	911.3	929.3	946.6	924.3	905.9
70°	777.9	793.4	809.3	786.2	769.3
72.5°	646.3	660.0	674.1	651.7	637.0
75°	518.4	530.3	541.8	522.0	510.4
77.5°	396.2	406.3	414.2	401.6	390.4
80°	282.6	290.2	294.9	289.8	279.4
82.5°	181.7	187.1	189.6	189.3	182.4
85°	98.8	100.6	105.3	106.3	102.7
87.5°	38.2	40.7	41.8	45.1	41.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)