

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: P488681

Luminaire Tested: **CLM-12-4-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: P488681
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-12-4-INS-A19156-LD4-2HI-35-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

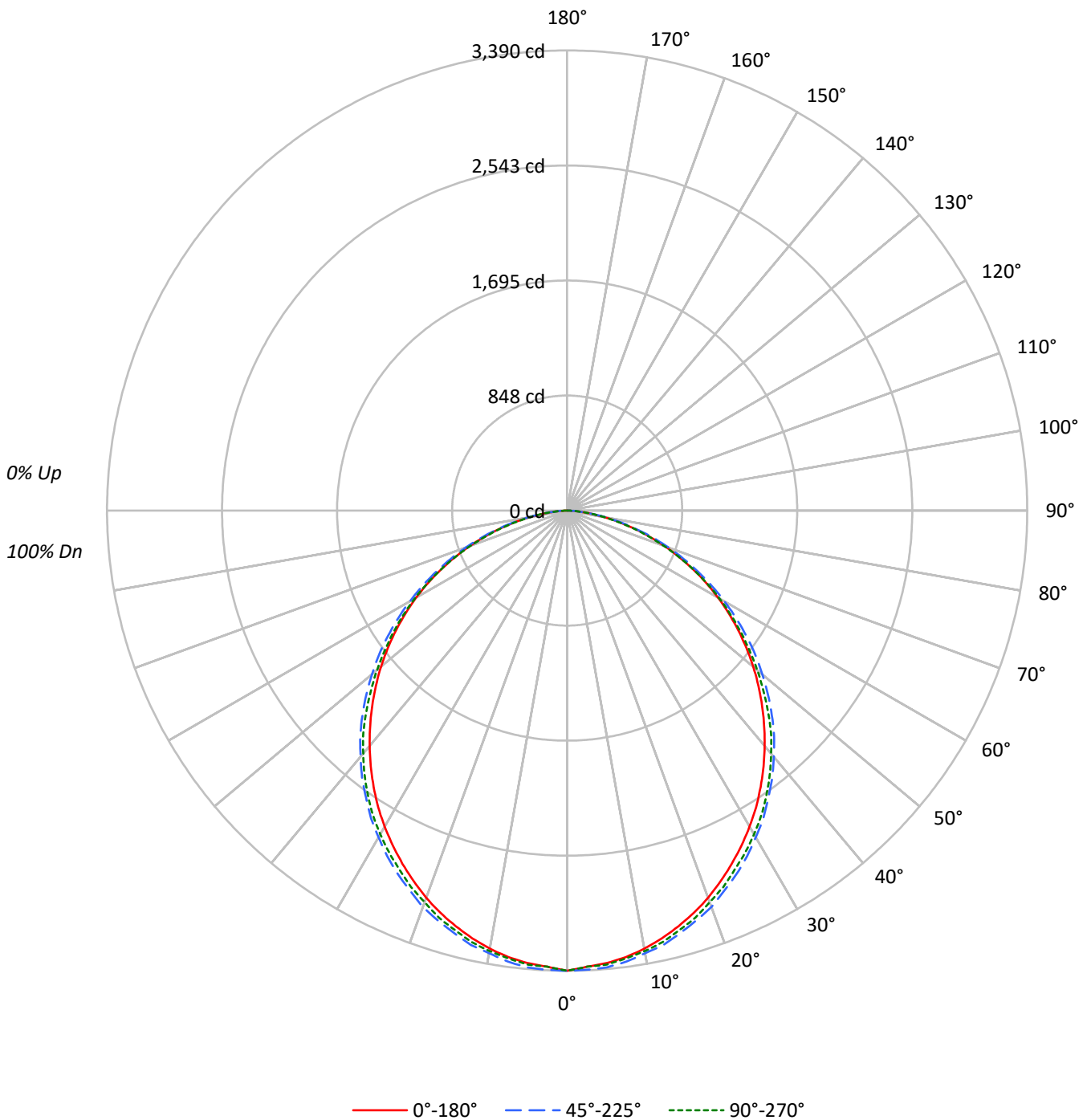
Lumens per Lamp: N/A
Luminaire Lumens: 8913.3 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	9123	9123	9123
5°	9039	9124	9067
10°	8956	9047	9003
15°	8832	8975	8912
20°	8693	8899	8792
25°	8524	8771	8671
30°	8351	8635	8556
35°	8163	8487	8408
40°	7951	8317	8212
45°	7728	8118	7965
50°	7496	7858	7653
55°	7224	7562	7330
60°	6916	7203	6981
65°	6518	6768	6523
70°	5998	6239	5931
75°	5281	5520	5201
80°	4291	4477	4243
85°	2989	3183	3109



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.3	3.6
10°-20°	904.8	10.2
20°-30°	1349.5	15.1
30°-40°	1599.2	17.9
40°-50°	1618.1	18.2
50°-60°	1413.2	15.9
60°-70°	1032.7	11.6
70°-80°	549.5	6.2
80°-90°	127.0	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°	2573.6	28.9
0°-40°	4172.8	46.8
0°-60°	7204.1	80.8
0°-90°	8913.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8913.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3390	3390	3390	3390	3390	
5°	3346	3352	3378	3385	3357	317
15°	3170	3191	3222	3241	3199	894
25°	2871	2906	2954	2965	2920	1323
35°	2485	2524	2584	2602	2560	1554
45°	2031	2067	2133	2135	2093	1567
55°	1540	1571	1612	1588	1562	1376
65°	1024	1044	1063	1042	1024	1013
75°	508	520	531	512	500	540
85°	97	99	103	104	101	123
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3390.3	3390.3	3390.3	3390.3	3390.3
2.5°	3363.8	3374.8	3386.1	3391.0	3363.5
5°	3346.1	3352.5	3377.6	3385.4	3356.7
7.5°	3317.2	3326.7	3351.1	3354.6	3327.1
10°	3277.6	3294.6	3310.8	3328.5	3294.9
12.5°	3227.1	3250.1	3277.6	3280.8	3255.4
15°	3170.2	3191.4	3221.5	3240.9	3198.9
17.5°	3106.7	3127.1	3166.0	3169.5	3144.1
20°	3035.7	3061.1	3107.7	3115.8	3070.3
22.5°	2955.1	2989.4	3028.2	3036.0	3002.5
25°	2870.7	2906.0	2954.1	2965.0	2920.2
27.5°	2782.4	2816.3	2870.3	2878.1	2840.3
30°	2687.7	2719.5	2778.9	2791.9	2753.4
32.5°	2591.6	2623.4	2689.1	2700.1	2662.6
35°	2485.0	2523.8	2583.5	2601.5	2559.5
37.5°	2376.2	2414.0	2481.8	2498.0	2452.8
40°	2263.5	2300.9	2367.7	2381.1	2337.7
42.5°	2148.3	2185.8	2257.1	2259.3	2223.2
45°	2030.7	2066.7	2133.2	2134.9	2092.9
47.5°	1911.3	1947.7	2007.1	2000.3	1960.8
50°	1790.5	1825.1	1877.1	1863.6	1828.0
52.5°	1665.5	1699.0	1748.1	1726.2	1692.7
55°	1539.7	1570.8	1611.8	1588.5	1562.3
57.5°	1412.9	1444.4	1475.8	1452.1	1429.5
60°	1285.1	1312.6	1338.4	1314.4	1297.1
62.5°	1155.1	1178.7	1201.0	1178.0	1161.8
65°	1023.7	1044.5	1062.9	1041.7	1024.4
67.5°	893.0	910.6	927.6	905.7	887.7
70°	762.3	777.5	793.0	770.4	753.8
72.5°	633.3	646.8	660.5	638.6	624.2
75°	507.9	519.6	530.9	511.5	500.2
77.5°	388.2	398.1	405.9	393.5	382.5
80°	276.9	284.4	288.9	284.0	273.8
82.5°	178.0	183.3	185.8	185.4	178.7
85°	96.8	98.6	103.1	104.2	100.7
87.5°	37.4	39.9	41.0	44.2	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)