

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: P488679

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-2HI-30-120-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: P488679
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-30-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

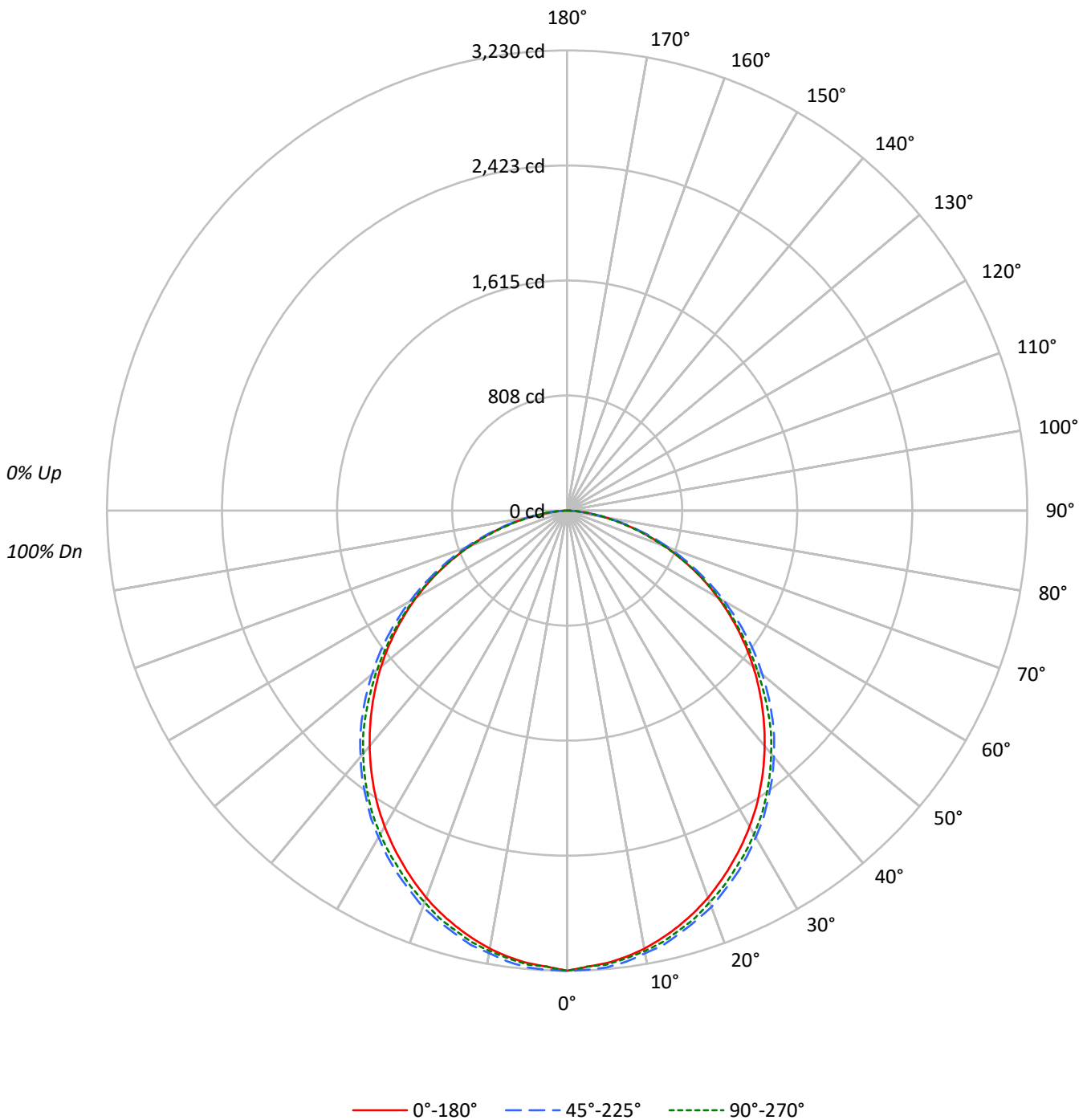
Lumens per Lamp: N/A
Luminaire Lumens: 8492.3 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	8692	8692	8692
5°	8612	8693	8639
10°	8533	8619	8578
15°	8415	8551	8491
20°	8283	8479	8377
25°	8121	8357	8261
30°	7957	8227	8152
35°	7778	8086	8011
40°	7576	7925	7824
45°	7363	7735	7588
50°	7142	7487	7291
55°	6883	7205	6983
60°	6590	6863	6651
65°	6210	6448	6215
70°	5714	5944	5651
75°	5032	5259	4954
80°	4090	4266	4042
85°	2847	3035	2961



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.2	3.6
10°-20°	862.1	10.2
20°-30°	1285.8	15.1
30°-40°	1523.7	17.9
40°-50°	1541.7	18.2
50°-60°	1346.4	15.9
60°-70°	983.9	11.6
70°-80°	523.5	6.2
80°-90°	121.0	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°	2452.1	28.9
0°-40°	3975.7	46.8
0°-60°	6863.9	80.8
0°-90°	8492.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8492.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3230	3230	3230	3230	3230	
5°	3188	3194	3218	3226	3198	302
15°	3020	3041	3069	3088	3048	852
25°	2735	2769	2814	2825	2782	1260
35°	2368	2405	2462	2479	2439	1481
45°	1935	1969	2032	2034	1994	1493
55°	1467	1497	1536	1513	1488	1311
65°	975	995	1013	992	976	965
75°	484	495	506	487	476	515
85°	92	94	98	99	96	117
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3230.2	3230.2	3230.2	3230.2	3230.2
2.5°	3204.9	3215.4	3226.1	3230.8	3204.6
5°	3188.1	3194.2	3218.1	3225.5	3198.2
7.5°	3160.5	3169.6	3192.8	3196.2	3169.9
10°	3122.8	3139.0	3154.4	3171.3	3139.3
12.5°	3074.7	3096.6	3122.8	3125.8	3101.6
15°	3020.5	3040.7	3069.3	3087.8	3047.8
17.5°	2959.9	2979.4	3016.5	3019.8	2995.6
20°	2892.3	2916.5	2960.9	2968.7	2925.3
22.5°	2815.5	2848.2	2885.2	2892.6	2860.6
25°	2735.1	2768.8	2814.5	2825.0	2782.2
27.5°	2651.0	2683.3	2734.8	2742.2	2706.2
30°	2560.8	2591.1	2647.6	2660.1	2623.4
32.5°	2469.2	2499.5	2562.1	2572.6	2536.9
35°	2367.6	2404.6	2461.5	2478.7	2438.6
37.5°	2263.9	2300.0	2364.6	2380.1	2337.0
40°	2156.6	2192.3	2255.9	2268.7	2227.3
42.5°	2046.9	2082.5	2150.5	2152.5	2118.2
45°	1934.8	1969.1	2032.4	2034.1	1994.0
47.5°	1821.1	1855.7	1912.3	1905.9	1868.2
50°	1706.0	1738.9	1788.4	1775.6	1741.6
52.5°	1586.8	1618.8	1665.6	1644.7	1612.7
55°	1467.0	1496.6	1535.7	1513.4	1488.5
57.5°	1346.2	1376.1	1406.1	1383.5	1362.0
60°	1224.4	1250.6	1275.2	1252.3	1235.8
62.5°	1100.5	1123.1	1144.3	1122.4	1106.9
65°	975.3	995.2	1012.7	992.5	976.0
67.5°	850.8	867.6	883.8	862.9	845.7
70°	726.3	740.7	755.5	734.0	718.2
72.5°	603.4	616.2	629.3	608.5	594.7
75°	484.0	495.1	505.8	487.3	476.5
77.5°	369.9	379.3	386.7	374.9	364.5
80°	263.9	270.9	275.3	270.6	260.8
82.5°	169.6	174.7	177.0	176.7	170.3
85°	92.2	93.9	98.3	99.3	95.9
87.5°	35.7	38.0	39.0	42.1	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)