

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: P489206

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5STD-30-120-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: P489206
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-24-2-INS-A19156-LD4-5STD-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

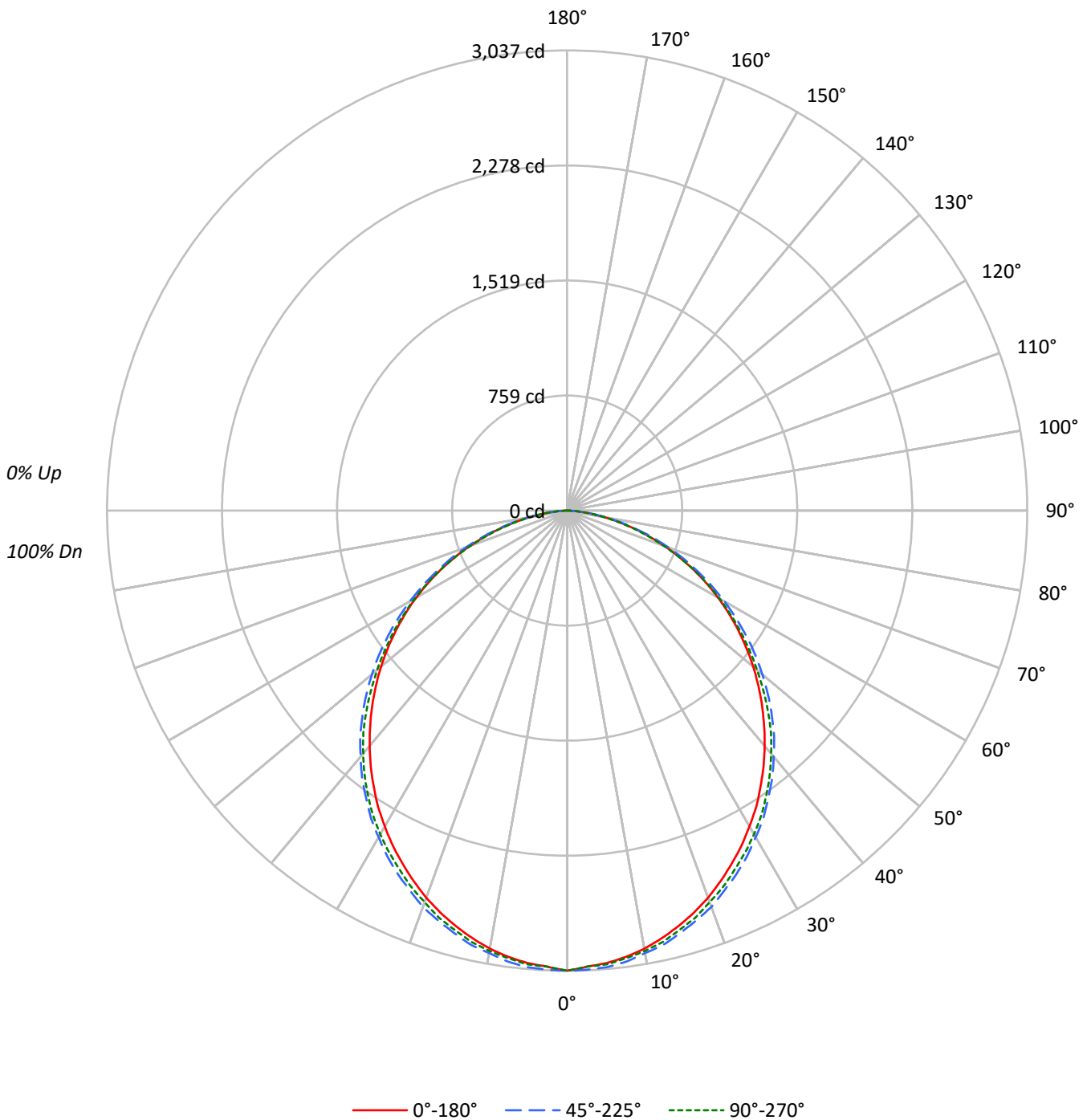
Lumens per Lamp: N/A
Luminaire Lumens: 7983.4 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 83.2
Input Voltage (V): NR
Input Current (A_{in}): 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°	8171	8171	8171
5°	8096	8172	8121
10°	8022	8103	8064
15°	7911	8038	7982
20°	7786	7971	7875
25°	7634	7856	7766
30°	7480	7734	7663
35°	7312	7602	7531
40°	7122	7450	7355
45°	6922	7271	7134
50°	6714	7038	6854
55°	6470	6773	6565
60°	6195	6452	6252
65°	5838	6062	5842
70°	5371	5589	5312
75°	4731	4944	4658
80°	3843	4011	3800
85°	2677	2853	2785



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.0	3.6
10°-20°	810.4	10.2
20°-30°	1208.7	15.1
30°-40°	1432.3	17.9
40°-50°	1449.3	18.2
50°-60°	1265.8	15.9
60°-70°	925.0	11.6
70°-80°	492.2	6.2
80°-90°	113.8	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°	2305.1	28.9
0°-40°	3737.5	46.8
0°-60°	6452.5	80.8
0°-90°	7983.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7983.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3037	3037	3037	3037	3037	
5°	2997	3003	3025	3032	3006	284
15°	2840	2858	2885	2903	2865	800
25°	2571	2603	2646	2656	2616	1185
35°	2226	2260	2314	2330	2292	1392
45°	1819	1851	1911	1912	1874	1403
55°	1379	1407	1444	1423	1399	1233
65°	917	936	952	933	918	907
75°	455	465	476	458	448	484
85°	87	88	92	93	90	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3036.6	3036.6	3036.6	3036.6	3036.6
2.5°	3012.9	3022.7	3032.8	3037.2	3012.6
5°	2997.1	3002.7	3025.2	3032.2	3006.5
7.5°	2971.1	2979.7	3001.5	3004.6	2980.0
10°	2935.7	2950.9	2965.4	2981.2	2951.2
12.5°	2890.4	2911.0	2935.7	2938.5	2915.7
15°	2839.5	2858.5	2885.4	2902.8	2865.1
17.5°	2782.5	2800.9	2835.7	2838.9	2816.1
20°	2719.0	2741.7	2783.5	2790.8	2750.0
22.5°	2646.8	2677.5	2712.3	2719.3	2689.2
25°	2571.2	2602.8	2645.9	2655.7	2615.5
27.5°	2492.1	2522.5	2570.9	2577.9	2544.0
30°	2407.3	2435.8	2488.9	2500.7	2466.2
32.5°	2321.3	2349.7	2408.6	2418.4	2384.9
35°	2225.7	2260.5	2314.0	2330.1	2292.5
37.5°	2128.3	2162.1	2222.9	2237.4	2196.9
40°	2027.4	2060.9	2120.7	2132.7	2093.8
42.5°	1924.2	1957.8	2021.7	2023.6	1991.3
45°	1818.9	1851.1	1910.6	1912.2	1874.5
47.5°	1711.9	1744.5	1797.7	1791.7	1756.2
50°	1603.7	1634.7	1681.2	1669.2	1637.3
52.5°	1491.7	1521.8	1565.8	1546.1	1516.1
55°	1379.1	1406.9	1443.6	1422.8	1399.3
57.5°	1265.5	1293.7	1321.8	1300.6	1280.4
60°	1151.0	1175.7	1198.8	1177.2	1161.7
62.5°	1034.6	1055.8	1075.7	1055.1	1040.6
65°	916.9	935.5	952.0	933.0	917.5
67.5°	799.8	815.6	830.8	811.2	795.1
70°	682.7	696.3	710.3	690.0	675.2
72.5°	567.3	579.3	591.6	572.0	559.0
75°	455.0	465.4	475.5	458.1	448.0
77.5°	347.7	356.6	363.5	352.4	342.6
80°	248.0	254.7	258.8	254.4	245.2
82.5°	159.5	164.2	166.4	166.1	160.1
85°	86.7	88.3	92.4	93.3	90.2
87.5°	33.5	35.8	36.7	39.5	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)