

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: P489182

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-5HI-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: P489182  
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-LD4-5HI-30-120-EDD-90  
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

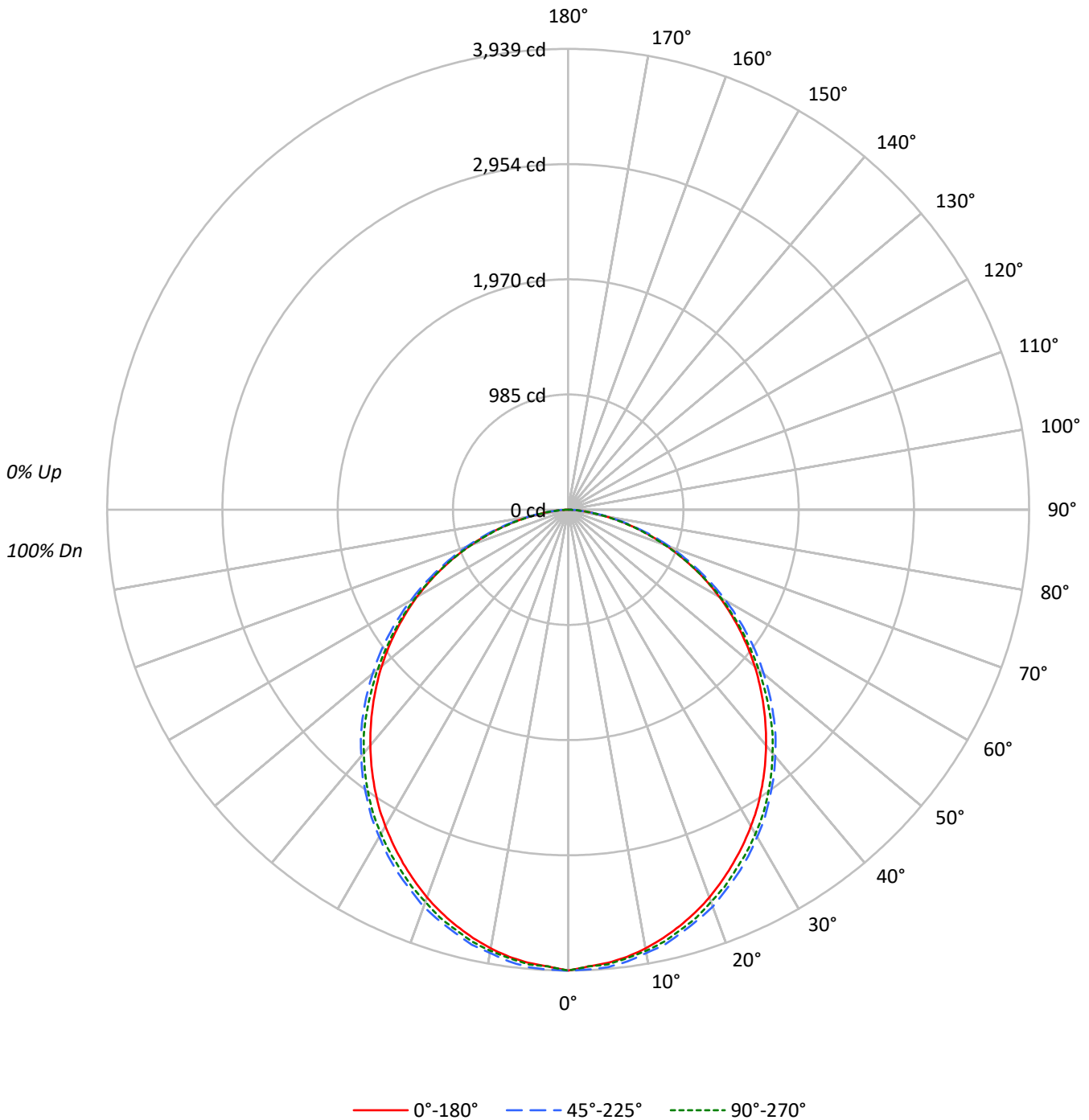
Lumens per Lamp: N/A  
Luminaire Lumens: 10356.8 lumens  
Efficiency: N/A  
Efficacy: 95.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 108  
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°	10601	10601	10601
5°	10503	10601	10536
10°	10406	10512	10461
15°	10262	10428	10355
20°	10101	10341	10216
25°	9904	10192	10075
30°	9704	10033	9941
35°	9485	9861	9770
40°	9239	9664	9542
45°	8980	9433	9255
50°	8710	9131	8892
55°	8394	8786	8517
60°	8036	8369	8111
65°	7573	7864	7579
70°	6969	7249	6891
75°	6136	6414	6043
80°	4987	5202	4930
85°	3473	3699	3612



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	371.0	3.6
10°-20°	1051.4	10.2
20°-30°	1568.1	15.1
30°-40°	1858.2	17.9
40°-50°	1880.2	18.2
50°-60°	1642.1	15.9
60°-70°	1199.9	11.6
70°-80°	638.5	6.2
80°-90°	147.6	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°	2990.4	28.9
0°-40°	4848.6	46.8
0°-60°	8370.8	80.8
0°-90°	10356.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10356.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3939	3939	3939	3939	3939	
5°	3888	3895	3925	3934	3900	369
15°	3684	3708	3743	3766	3717	1038
25°	3336	3377	3432	3445	3393	1537
35°	2887	2933	3002	3023	2974	1806
45°	2360	2402	2479	2481	2432	1820
55°	1789	1825	1873	1846	1815	1599
65°	1189	1214	1235	1210	1190	1177
75°	590	604	617	594	581	628
85°	112	114	120	121	117	142
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3939.4	3939.4	3939.4	3939.4	3939.4
2.5°	3908.6	3921.3	3934.4	3940.2	3908.2
5°	3888.1	3895.4	3924.6	3933.6	3900.4
7.5°	3854.4	3865.5	3893.8	3897.9	3865.9
10°	3808.4	3828.1	3847.0	3867.5	3828.5
12.5°	3749.7	3776.4	3808.4	3812.1	3782.6
15°	3683.7	3708.3	3743.2	3765.7	3716.9
17.5°	3609.8	3633.6	3678.7	3682.8	3653.3
20°	3527.3	3556.8	3611.0	3620.4	3567.5
22.5°	3433.7	3473.5	3518.7	3527.7	3488.7
25°	3335.6	3376.7	3432.5	3445.2	3393.1
27.5°	3233.0	3272.4	3335.2	3344.2	3300.3
30°	3123.0	3159.9	3228.9	3244.1	3199.3
32.5°	3011.4	3048.3	3124.6	3137.4	3093.9
35°	2887.4	2932.6	3001.9	3022.9	2974.0
37.5°	2761.0	2804.9	2883.7	2902.6	2850.1
40°	2630.1	2673.6	2751.1	2766.7	2716.3
42.5°	2496.3	2539.8	2622.7	2625.1	2583.3
45°	2359.6	2401.5	2478.6	2480.7	2431.8
47.5°	2220.9	2263.1	2332.1	2324.3	2278.3
50°	2080.5	2120.7	2181.1	2165.5	2124.0
52.5°	1935.2	1974.2	2031.2	2005.8	1966.8
55°	1789.1	1825.2	1872.8	1845.7	1815.4
57.5°	1641.7	1678.3	1714.8	1687.3	1661.0
60°	1493.2	1525.2	1555.1	1527.2	1507.1
62.5°	1342.1	1369.6	1395.5	1368.8	1349.9
65°	1189.4	1213.7	1235.0	1210.4	1190.3
67.5°	1037.6	1058.1	1077.8	1052.4	1031.4
70°	885.7	903.4	921.4	895.2	875.9
72.5°	735.9	751.5	767.5	742.1	725.2
75°	590.2	603.8	616.9	594.3	581.2
77.5°	451.1	462.6	471.6	457.2	444.5
80°	321.8	330.4	335.7	330.0	318.1
82.5°	206.9	213.0	215.9	215.5	207.7
85°	112.5	114.5	119.8	121.1	117.0
87.5°	43.5	46.4	47.6	51.3	47.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)