

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: P488438

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2LO-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: P488438  
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-12-2-INS-A19156-LD4-2LO-30-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

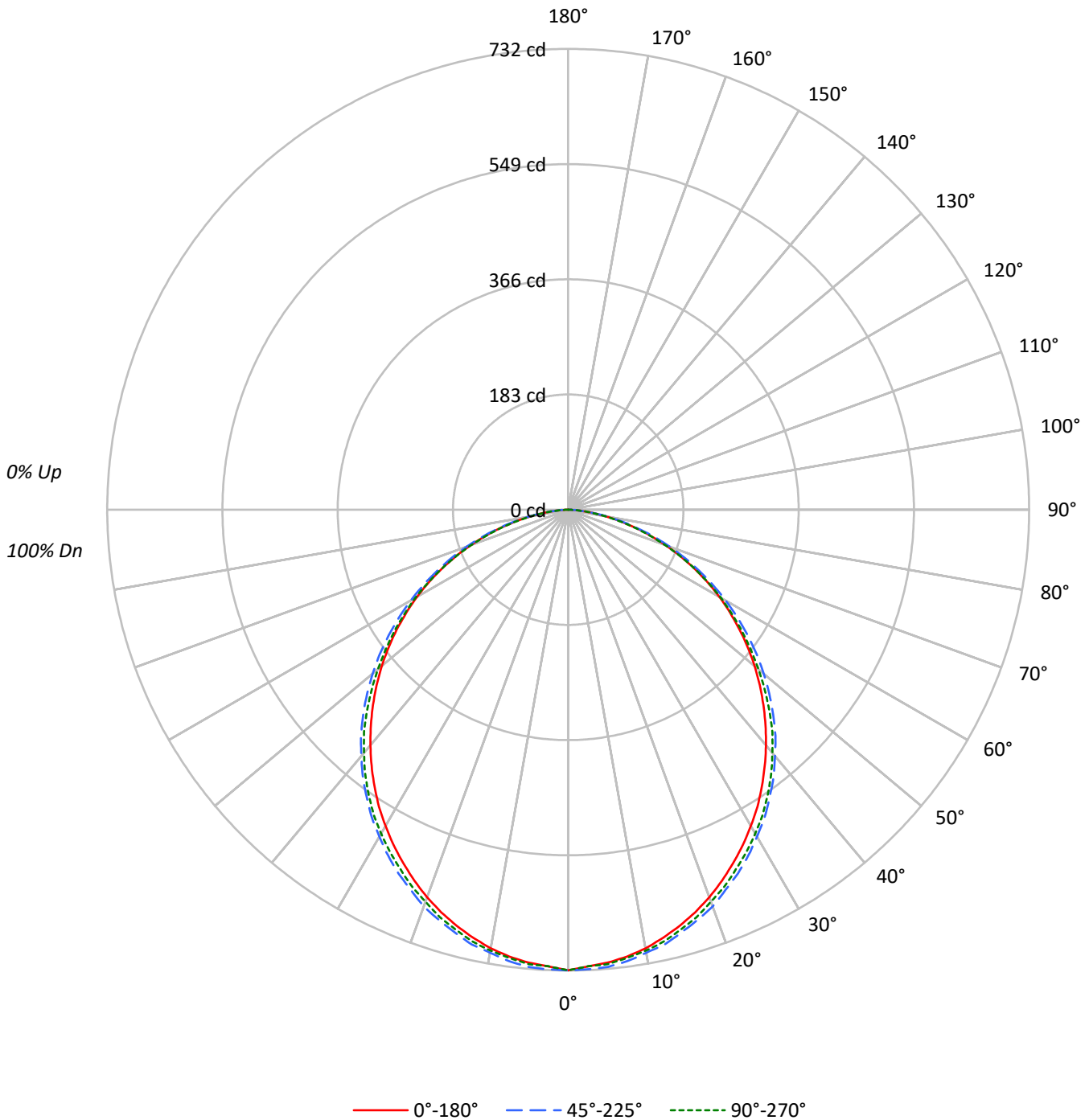
Lumens per Lamp: N/A  
Luminaire Lumens: 1923.6 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.4  
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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3938	3938	3938
5°	3901	3938	3914
10°	3866	3905	3886
15°	3812	3874	3847
20°	3752	3841	3795
25°	3679	3786	3742
30°	3604	3727	3693
35°	3524	3664	3629
40°	3432	3590	3544
45°	3336	3504	3438
50°	3235	3392	3303
55°	3118	3263	3164
60°	2985	3109	3013
65°	2813	2921	2816
70°	2589	2692	2560
75°	2279	2383	2244
80°	1853	1934	1832
85°	1291	1377	1340



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	3.6
10°-20°	195.3	10.2
20°-30°	291.2	15.1
30°-40°	345.1	17.9
40°-50°	349.2	18.2
50°-60°	305.0	15.9
60°-70°	222.9	11.6
70°-80°	118.6	6.2
80°-90°	27.4	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°	555.4	28.9
0°-40°	900.5	46.8
0°-60°	1554.7	80.8
0°-90°	1923.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1923.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	722	724	729	731	724	68
15°	684	689	695	699	690	193
25°	620	627	638	640	630	285
35°	536	545	558	561	552	335
45°	438	446	460	461	452	338
55°	332	339	348	343	337	297
65°	221	225	229	225	221	219
75°	110	112	115	110	108	117
85°	21	21	22	22	22	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	731.7	731.7	731.7	731.7	731.7
2.5°	726.0	728.3	730.8	731.8	725.9
5°	722.1	723.5	728.9	730.6	724.4
7.5°	715.9	717.9	723.2	724.0	718.0
10°	707.4	711.0	714.5	718.3	711.1
12.5°	696.5	701.4	707.4	708.0	702.5
15°	684.2	688.8	695.2	699.4	690.4
17.5°	670.5	674.9	683.3	684.0	678.5
20°	655.1	660.6	670.7	672.4	662.6
22.5°	637.8	645.1	653.5	655.2	648.0
25°	619.5	627.2	637.5	639.9	630.2
27.5°	600.5	607.8	619.5	621.1	613.0
30°	580.0	586.9	599.7	602.5	594.2
32.5°	559.3	566.2	580.3	582.7	574.6
35°	536.3	544.7	557.6	561.4	552.4
37.5°	512.8	521.0	535.6	539.1	529.4
40°	488.5	496.6	511.0	513.9	504.5
42.5°	463.6	471.7	487.1	487.6	479.8
45°	438.3	446.0	460.4	460.7	451.7
47.5°	412.5	420.3	433.1	431.7	423.2
50°	386.4	393.9	405.1	402.2	394.5
52.5°	359.4	366.7	377.3	372.5	365.3
55°	332.3	339.0	347.8	342.8	337.2
57.5°	304.9	311.7	318.5	313.4	308.5
60°	277.3	283.3	288.8	283.7	279.9
62.5°	249.3	254.4	259.2	254.2	250.7
65°	220.9	225.4	229.4	224.8	221.1
67.5°	192.7	196.5	200.2	195.5	191.6
70°	164.5	167.8	171.1	166.3	162.7
72.5°	136.7	139.6	142.6	137.8	134.7
75°	109.6	112.1	114.6	110.4	107.9
77.5°	83.8	85.9	87.6	84.9	82.6
80°	59.8	61.4	62.4	61.3	59.1
82.5°	38.4	39.6	40.1	40.0	38.6
85°	20.9	21.3	22.3	22.5	21.7
87.5°	8.1	8.6	8.8	9.5	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)