

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: P488420

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1STD-50-120-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: P488420  
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-LD4-1STD-50-120-EDD-90  
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

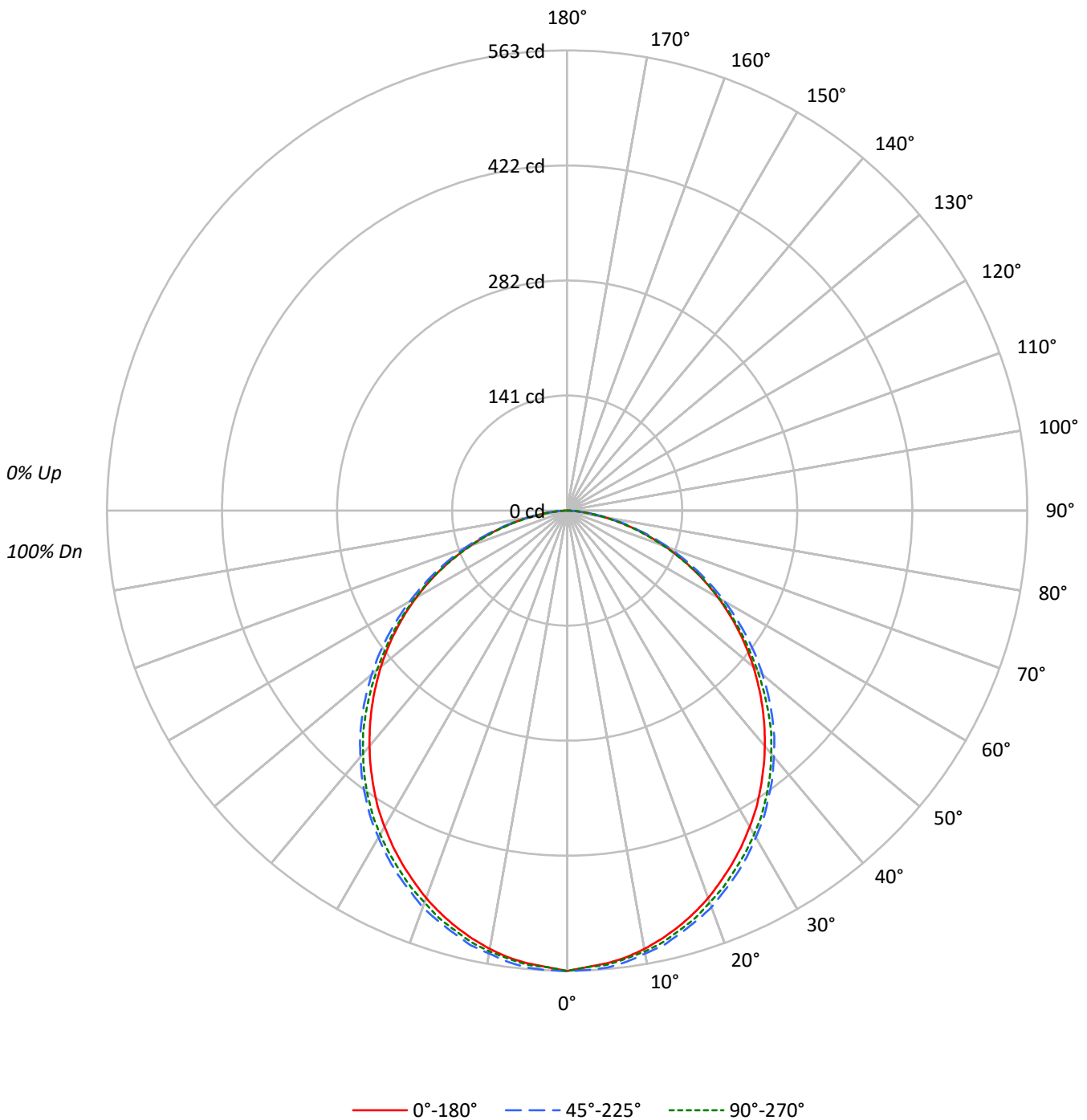
Lumens per Lamp: N/A  
Luminaire Lumens: 1481.3 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	3032	3032	3032
5°	3004	3032	3014
10°	2977	3007	2993
15°	2936	2983	2962
20°	2889	2958	2922
25°	2833	2915	2882
30°	2776	2870	2844
35°	2713	2821	2795
40°	2643	2765	2729
45°	2569	2698	2647
50°	2492	2611	2544
55°	2401	2514	2436
60°	2299	2394	2321
65°	2166	2249	2167
70°	1994	2074	1972
75°	1755	1834	1728
80°	1426	1488	1410
85°	994	1056	1031



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.1	3.6
10°-20°	150.4	10.2
20°-30°	224.3	15.1
30°-40°	265.8	17.9
40°-50°	268.9	18.2
50°-60°	234.9	15.9
60°-70°	171.6	11.6
70°-80°	91.3	6.2
80°-90°	21.1	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°	427.7	28.9
0°-40°	693.5	46.8
0°-60°	1197.3	80.8
0°-90°	1481.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1481.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	563	563	563	563	563	
5°	556	557	561	563	558	53
15°	527	530	535	539	532	149
25°	477	483	491	493	485	220
35°	413	419	429	432	425	258
45°	338	344	354	355	348	260
55°	256	261	268	264	260	229
65°	170	174	177	173	170	168
75°	84	86	88	85	83	90
85°	16	16	17	17	17	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	563.4	563.4	563.4	563.4	563.4
2.5°	559.0	560.9	562.7	563.6	559.0
5°	556.1	557.2	561.3	562.6	557.9
7.5°	551.3	552.9	556.9	557.5	552.9
10°	544.7	547.5	550.2	553.2	547.6
12.5°	536.3	540.1	544.7	545.2	541.0
15°	526.9	530.4	535.4	538.6	531.6
17.5°	516.3	519.7	526.2	526.7	522.5
20°	504.5	508.7	516.5	517.8	510.2
22.5°	491.1	496.8	503.3	504.6	499.0
25°	477.1	483.0	490.9	492.8	485.3
27.5°	462.4	468.0	477.0	478.3	472.0
30°	446.7	452.0	461.8	464.0	457.6
32.5°	430.7	436.0	446.9	448.7	442.5
35°	413.0	419.4	429.4	432.3	425.4
37.5°	394.9	401.2	412.4	415.1	407.6
40°	376.2	382.4	393.5	395.7	388.5
42.5°	357.0	363.3	375.1	375.5	369.5
45°	337.5	343.5	354.5	354.8	347.8
47.5°	317.6	323.7	333.6	332.4	325.9
50°	297.6	303.3	311.9	309.7	303.8
52.5°	276.8	282.4	290.5	286.9	281.3
55°	255.9	261.1	267.9	264.0	259.6
57.5°	234.8	240.0	245.3	241.3	237.6
60°	213.6	218.1	222.4	218.4	215.6
62.5°	192.0	195.9	199.6	195.8	193.1
65°	170.1	173.6	176.6	173.1	170.2
67.5°	148.4	151.3	154.2	150.5	147.5
70°	126.7	129.2	131.8	128.0	125.3
72.5°	105.3	107.5	109.8	106.1	103.7
75°	84.4	86.4	88.2	85.0	83.1
77.5°	64.5	66.2	67.5	65.4	63.6
80°	46.0	47.3	48.0	47.2	45.5
82.5°	29.6	30.5	30.9	30.8	29.7
85°	16.1	16.4	17.1	17.3	16.7
87.5°	6.2	6.6	6.8	7.3	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)