

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: P488744

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-3STD-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: P488744  
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-LD4-3STD-50-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

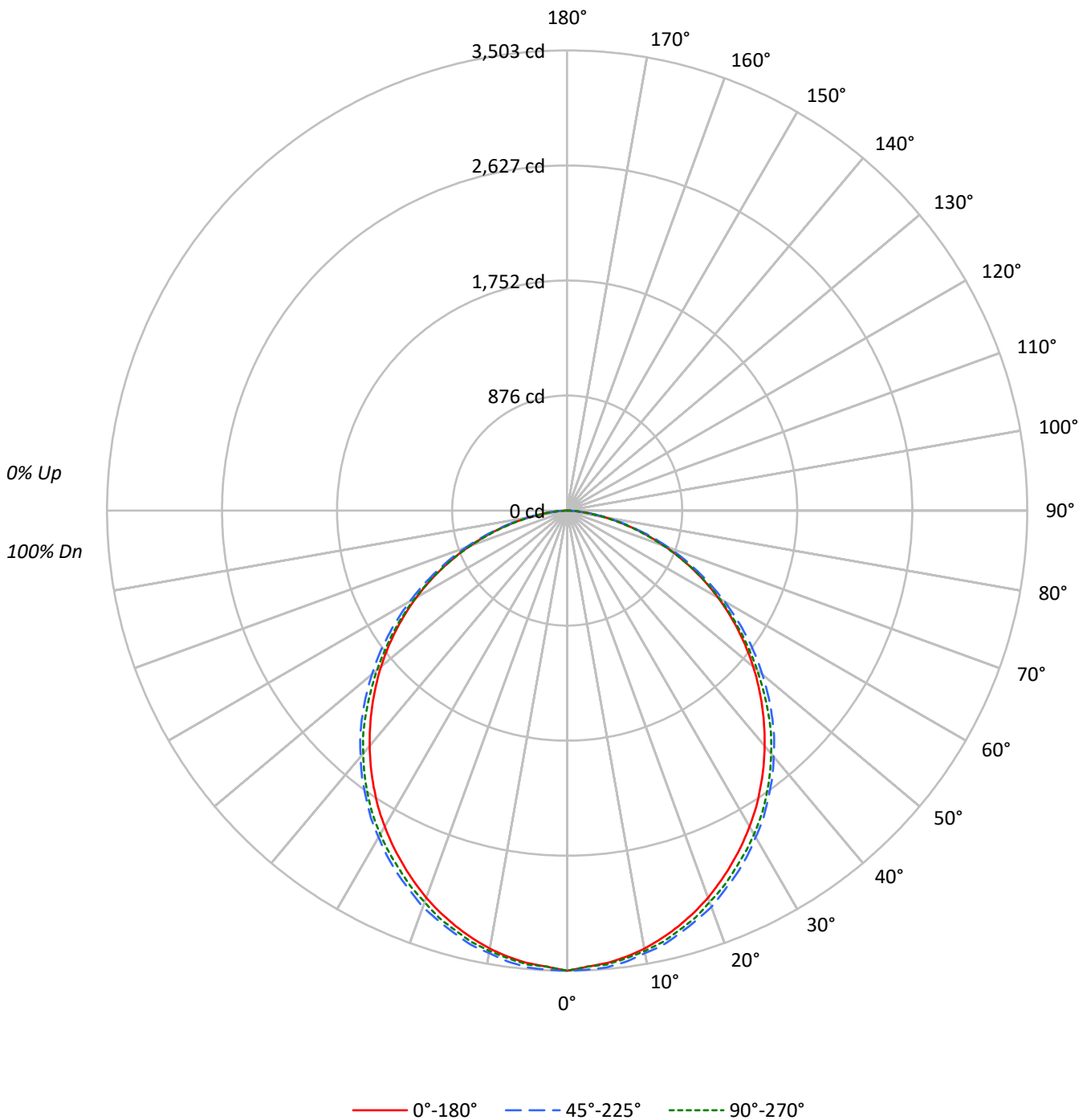
Lumens per Lamp: N/A  
Luminaire Lumens: 9209.6 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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

TEST NUMBER: P488744

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD-90

### Luminous Intensity Polar Plot





TEST NUMBER: P488744

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD-90

**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°	9426	9426	9426
5°	9339	9427	9369
10°	9254	9348	9303
15°	9126	9273	9208
20°	8982	9195	9084
25°	8807	9063	8959
30°	8629	8922	8840
35°	8435	8769	8688
40°	8215	8594	8485
45°	7985	8388	8230
50°	7745	8120	7907
55°	7464	7813	7574
60°	7146	7443	7213
65°	6735	6993	6739
70°	6197	6447	6128
75°	5456	5704	5373
80°	4434	4626	4384
85°	3088	3291	3211



TEST NUMBER: P488744

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD-90

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	329.9	3.6
10°-20°	934.9	10.2
20°-30°	1394.4	15.1
30°-40°	1652.3	17.9
40°-50°	1671.9	18.2
50°-60°	1460.2	15.9
60°-70°	1067.0	11.6
70°-80°	567.8	6.2
80°-90°	131.2	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°	2659.2	28.9
0°-40°	4311.5	46.8
0°-60°	7443.6	80.8
0°-90°	9209.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9209.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3503	3503	3503	3503	3503	
5°	3457	3464	3490	3498	3468	328
15°	3276	3298	3328	3349	3305	923
25°	2966	3003	3052	3064	3017	1367
35°	2568	2608	2669	2688	2645	1606
45°	2098	2136	2204	2206	2162	1619
55°	1591	1623	1665	1641	1614	1422
65°	1058	1079	1098	1076	1058	1047
75°	525	537	549	528	517	558
85°	100	102	107	108	104	127
90°	0	0	0	0	0	



TEST NUMBER: P488744

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-3STD-50-120-EDD-90

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3503.0	3503.0	3503.0	3503.0	3503.0
2.5°	3475.6	3486.9	3498.6	3503.7	3475.3
5°	3457.4	3464.0	3489.9	3497.9	3468.3
7.5°	3427.5	3437.3	3462.5	3466.1	3437.7
10°	3386.6	3404.1	3420.9	3439.1	3404.5
12.5°	3334.4	3358.1	3386.6	3389.9	3363.6
15°	3275.6	3297.5	3328.5	3348.6	3305.2
17.5°	3209.9	3231.1	3271.2	3274.9	3248.6
20°	3136.6	3162.8	3211.0	3219.4	3172.3
22.5°	3053.4	3088.8	3128.9	3136.9	3102.3
25°	2966.1	3002.6	3052.3	3063.6	3017.2
27.5°	2874.9	2909.9	2965.8	2973.8	2934.7
30°	2777.1	2809.9	2871.2	2884.7	2845.0
32.5°	2677.8	2710.6	2778.5	2789.8	2751.2
35°	2567.6	2607.7	2669.4	2688.0	2644.6
37.5°	2455.2	2494.2	2564.3	2581.1	2534.4
40°	2338.7	2377.4	2446.4	2460.3	2415.4
42.5°	2219.8	2258.4	2332.2	2334.4	2297.1
45°	2098.2	2135.5	2204.1	2205.9	2162.5
47.5°	1974.9	2012.5	2073.8	2066.8	2026.0
50°	1850.0	1885.8	1939.5	1925.6	1888.7
52.5°	1720.8	1755.5	1806.2	1783.6	1748.9
55°	1590.9	1623.0	1665.4	1641.3	1614.3
57.5°	1459.9	1492.4	1524.9	1500.4	1477.0
60°	1327.8	1356.2	1382.9	1358.1	1340.2
62.5°	1193.5	1217.9	1240.9	1217.2	1200.4
65°	1057.7	1079.2	1098.2	1076.3	1058.4
67.5°	922.6	940.9	958.4	935.8	917.2
70°	787.6	803.3	819.4	796.0	778.9
72.5°	654.4	668.3	682.5	659.9	644.9
75°	524.8	536.9	548.6	528.5	516.8
77.5°	401.1	411.3	419.4	406.6	395.3
80°	286.1	293.8	298.5	293.4	282.9
82.5°	183.9	189.4	192.0	191.6	184.7
85°	100.0	101.8	106.6	107.7	104.0
87.5°	38.7	41.2	42.3	45.6	42.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)