

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: P488666

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-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: P488666  
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-LD4-1STD-30-120-EDD-90  
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

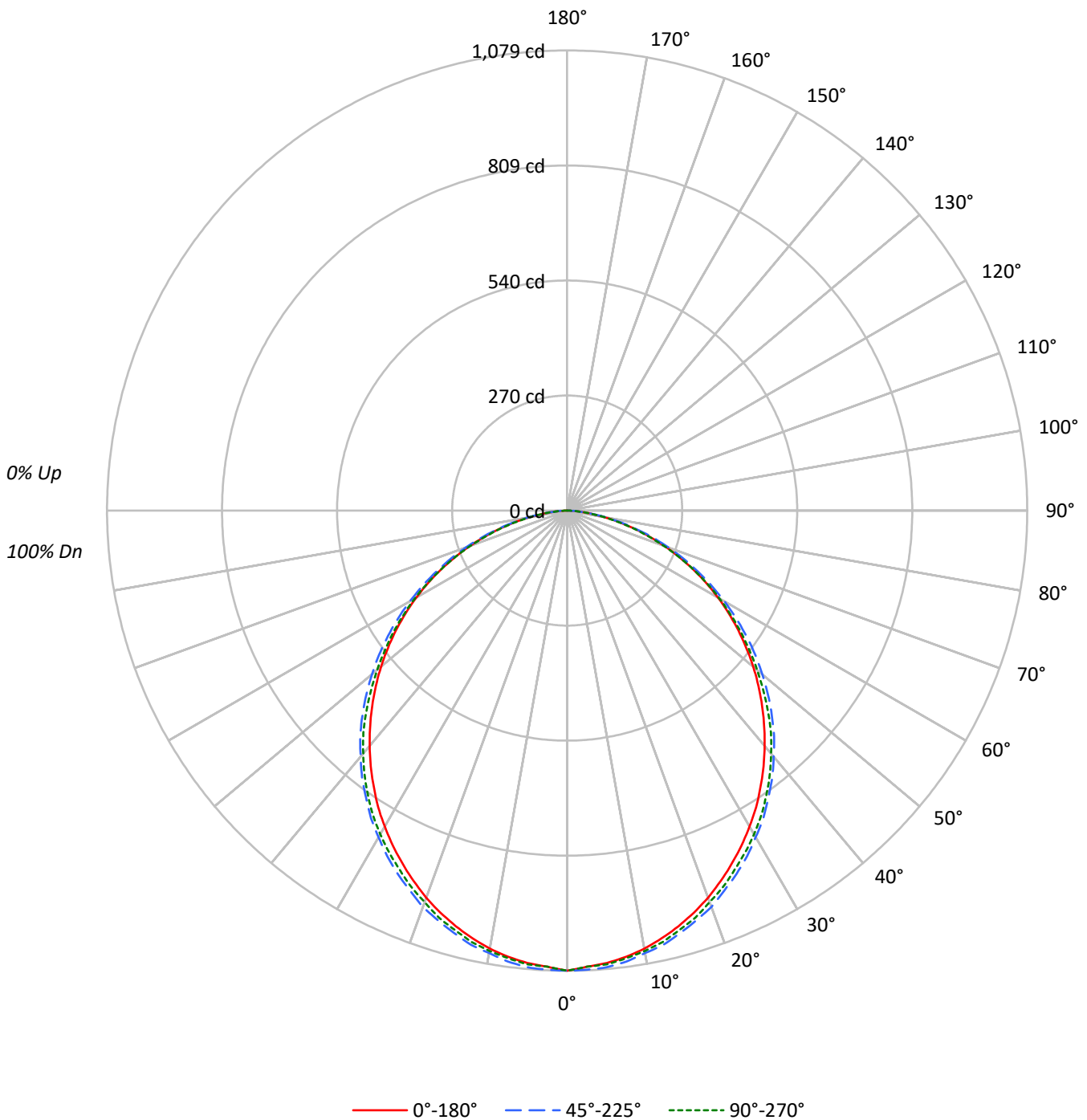
Lumens per Lamp: N/A  
Luminaire Lumens: 2836.6 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 33.3  
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°	2903	2903	2903
5°	2877	2904	2886
10°	2850	2879	2865
15°	2811	2856	2836
20°	2767	2832	2798
25°	2713	2791	2759
30°	2658	2748	2723
35°	2598	2701	2676
40°	2530	2647	2614
45°	2460	2584	2535
50°	2385	2501	2435
55°	2299	2406	2333
60°	2201	2292	2222
65°	2074	2154	2076
70°	1909	1986	1888
75°	1681	1757	1655
80°	1365	1426	1350
85°	951	1013	988



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.6	3.6
10°-20°	288.0	10.2
20°-30°	429.5	15.1
30°-40°	508.9	17.9
40°-50°	515.0	18.2
50°-60°	449.7	15.9
60°-70°	328.7	11.6
70°-80°	174.9	6.2
80°-90°	40.4	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°	819.0	28.9
0°-40°	1328.0	46.8
0°-60°	2292.7	80.8
0°-90°	2836.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2836.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1065	1067	1075	1077	1068	101
15°	1009	1016	1025	1031	1018	284
25°	914	925	940	944	929	421
35°	791	803	822	828	814	495
45°	646	658	679	679	666	499
55°	490	500	513	506	497	438
65°	326	332	338	332	326	322
75°	162	165	169	163	159	172
85°	31	31	33	33	32	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1078.9	1078.9	1078.9	1078.9	1078.9
2.5°	1070.5	1074.0	1077.6	1079.2	1070.4
5°	1064.9	1066.9	1074.9	1077.4	1068.3
7.5°	1055.7	1058.7	1066.5	1067.6	1058.8
10°	1043.1	1048.5	1053.6	1059.3	1048.6
12.5°	1027.0	1034.3	1043.1	1044.1	1036.0
15°	1008.9	1015.7	1025.2	1031.4	1018.0
17.5°	988.7	995.2	1007.6	1008.7	1000.6
20°	966.1	974.2	989.0	991.6	977.1
22.5°	940.4	951.4	963.7	966.2	955.5
25°	913.6	924.8	940.1	943.6	929.3
27.5°	885.5	896.3	913.5	915.9	903.9
30°	855.4	865.5	884.4	888.5	876.3
32.5°	824.8	834.9	855.8	859.3	847.4
35°	790.8	803.2	822.2	827.9	814.5
37.5°	756.2	768.2	789.8	795.0	780.6
40°	720.3	732.3	753.5	757.8	744.0
42.5°	683.7	695.6	718.3	719.0	707.5
45°	646.3	657.7	678.9	679.4	666.0
47.5°	608.3	619.8	638.7	636.6	624.0
50°	569.8	580.8	597.4	593.1	581.7
52.5°	530.0	540.7	556.3	549.4	538.7
55°	490.0	499.9	512.9	505.5	497.2
57.5°	449.7	459.7	469.7	462.1	454.9
60°	409.0	417.7	425.9	418.3	412.8
62.5°	367.6	375.1	382.2	374.9	369.7
65°	325.8	332.4	338.3	331.5	326.0
67.5°	284.2	289.8	295.2	288.2	282.5
70°	242.6	247.4	252.4	245.2	239.9
72.5°	201.6	205.8	210.2	203.2	198.6
75°	161.7	165.4	169.0	162.8	159.2
77.5°	123.5	126.7	129.2	125.2	121.7
80°	88.1	90.5	92.0	90.4	87.1
82.5°	56.7	58.3	59.1	59.0	56.9
85°	30.8	31.4	32.8	33.2	32.0
87.5°	11.9	12.7	13.0	14.1	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)