

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: P489596

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1LO-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: P489596
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-24-4-INS-A19156-LD4-1LO-50-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

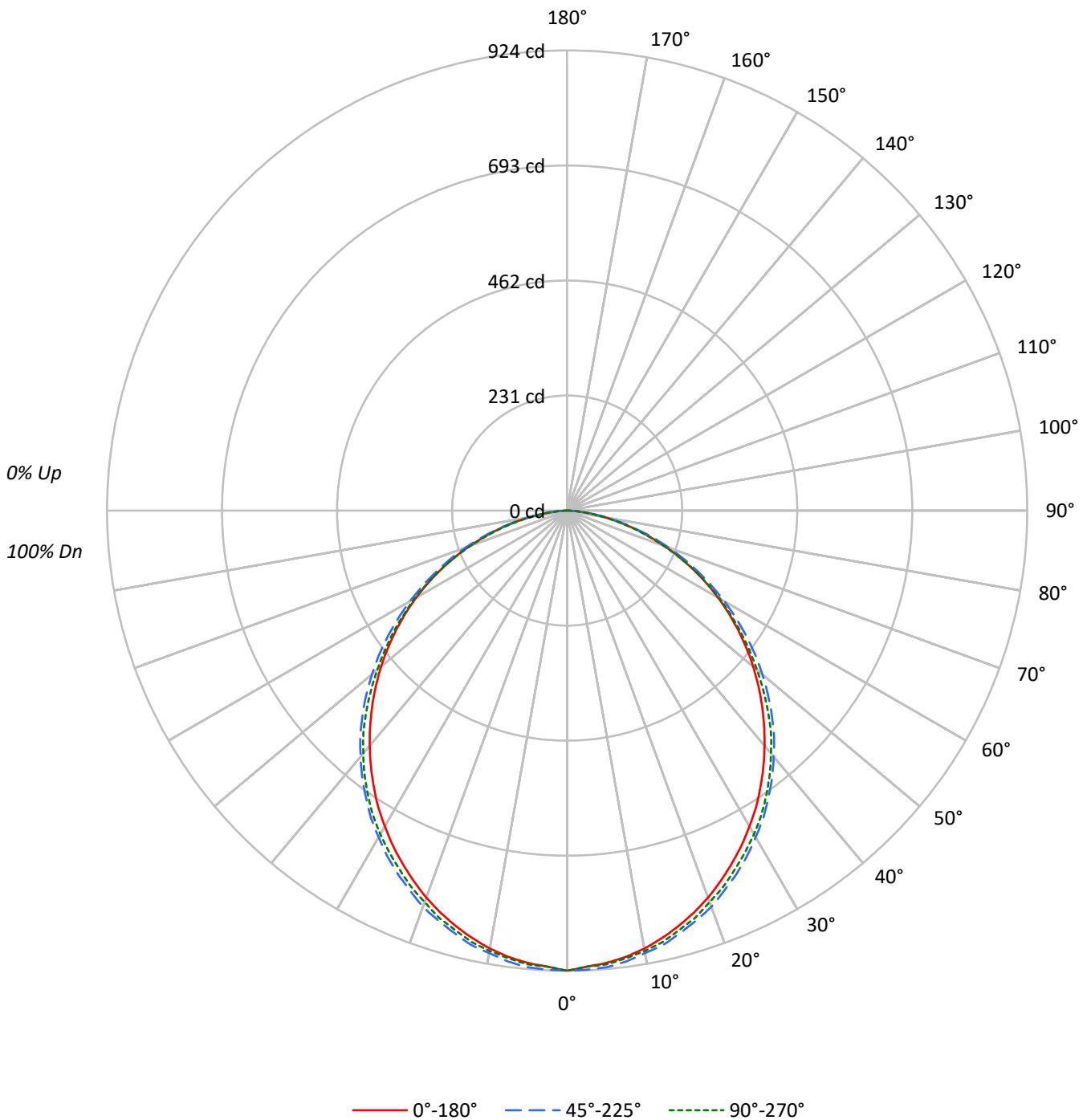
Lumens per Lamp: N/A
Luminaire Lumens: 2428.6 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	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°	1243	1243	1243
5°	1231	1243	1235
10°	1220	1232	1227
15°	1203	1223	1214
20°	1184	1212	1198
25°	1161	1195	1181
30°	1138	1176	1166
35°	1112	1156	1146
40°	1083	1133	1119
45°	1053	1106	1085
50°	1021	1070	1043
55°	984	1030	999
60°	942	981	951
65°	888	922	889
70°	817	850	808
75°	719	752	709
80°	585	610	578
85°	408	434	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.0	3.6
10°-20°	246.5	10.2
20°-30°	367.7	15.1
30°-40°	435.7	17.9
40°-50°	440.9	18.2
50°-60°	385.0	15.9
60°-70°	281.4	11.6
70°-80°	149.7	6.2
80°-90°	34.6	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°	701.2	28.9
0°-40°	1137.0	46.8
0°-60°	1962.9	80.8
0°-90°	2428.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	924	924	924	924	924	
5°	912	914	920	922	915	86
15°	864	870	878	883	872	244
25°	782	792	805	808	796	360
35°	677	688	704	709	697	423
45°	553	563	581	582	570	427
55°	420	428	439	433	426	375
65°	279	285	290	284	279	276
75°	138	142	145	139	136	147
85°	26	27	28	28	27	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	923.8	923.8	923.8	923.8	923.8
2.5°	916.5	919.5	922.6	923.9	916.4
5°	911.7	913.5	920.3	922.4	914.6
7.5°	903.8	906.4	913.1	914.0	906.5
10°	893.1	897.7	902.1	906.9	897.8
12.5°	879.3	885.5	893.1	893.9	887.0
15°	863.8	869.6	877.7	883.0	871.6
17.5°	846.5	852.1	862.6	863.6	856.7
20°	827.1	834.1	846.8	849.0	836.6
22.5°	805.2	814.5	825.1	827.2	818.1
25°	782.2	791.8	804.9	807.9	795.7
27.5°	758.1	767.4	782.1	784.2	773.9
30°	732.3	741.0	757.2	760.7	750.2
32.5°	706.1	714.8	732.7	735.7	725.5
35°	677.1	687.7	703.9	708.8	697.4
37.5°	647.4	657.7	676.2	680.6	668.3
40°	616.7	626.9	645.1	648.8	636.9
42.5°	585.4	595.6	615.0	615.6	605.8
45°	553.3	563.1	581.2	581.7	570.2
47.5°	520.8	530.7	546.9	545.0	534.3
50°	487.9	497.3	511.4	507.8	498.1
52.5°	453.8	462.9	476.3	470.3	461.2
55°	419.5	428.0	439.2	432.8	425.7
57.5°	385.0	393.5	402.1	395.7	389.5
60°	350.1	357.6	364.7	358.1	353.4
62.5°	314.7	321.2	327.2	321.0	316.5
65°	278.9	284.6	289.6	283.8	279.1
67.5°	243.3	248.1	252.7	246.8	241.9
70°	207.7	211.8	216.1	209.9	205.4
72.5°	172.6	176.2	180.0	174.0	170.1
75°	138.4	141.6	144.7	139.4	136.3
77.5°	105.8	108.5	110.6	107.2	104.2
80°	75.5	77.5	78.7	77.4	74.6
82.5°	48.5	50.0	50.6	50.5	48.7
85°	26.4	26.9	28.1	28.4	27.4
87.5°	10.2	10.9	11.2	12.0	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)