

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: P489594

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1LO-40-120-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: P489594
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-40-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

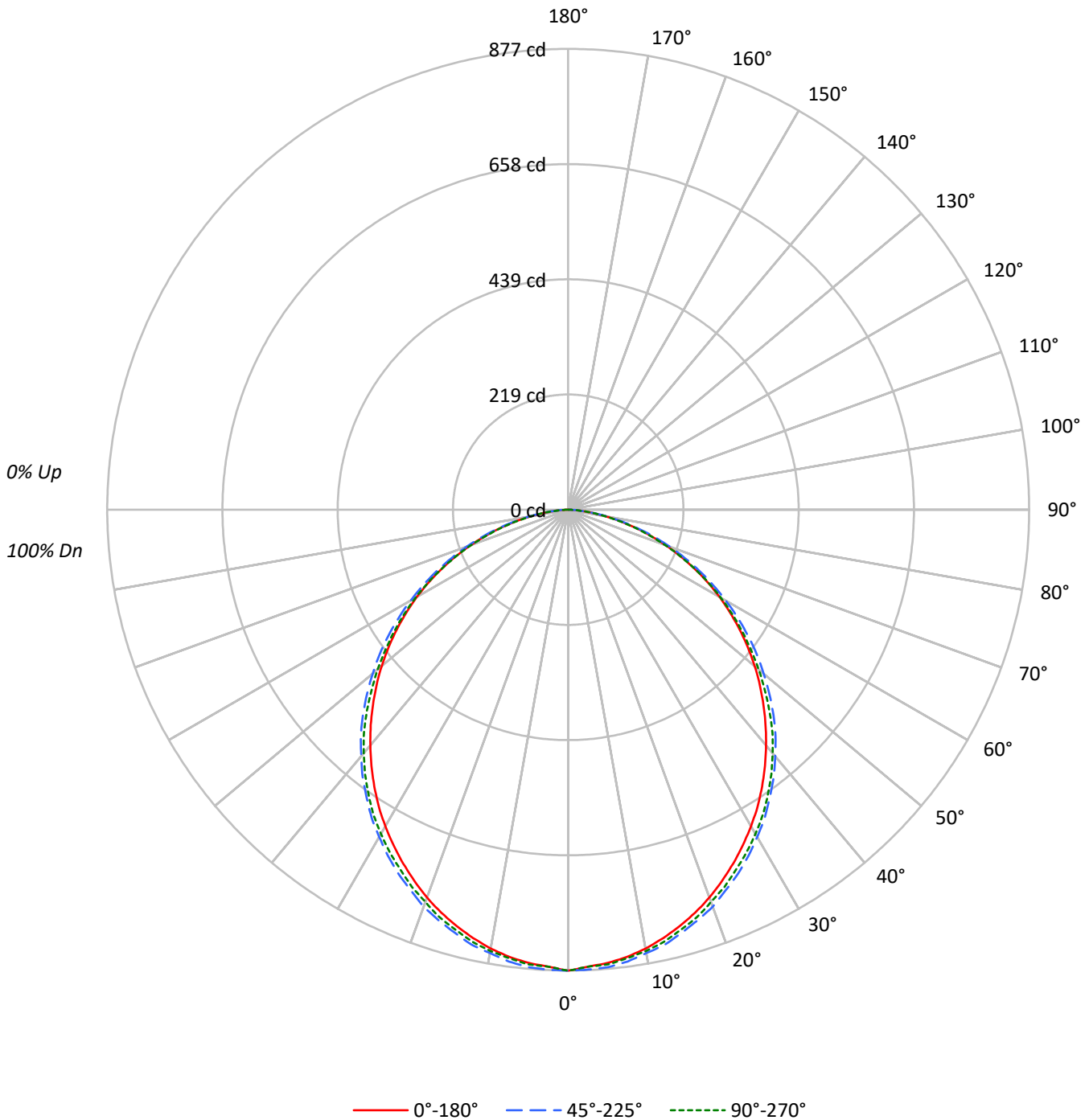
Lumens per Lamp: N/A
Luminaire Lumens: 2306.3 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1180	1180	1180
5°	1169	1180	1173
10°	1159	1170	1165
15°	1143	1161	1153
20°	1125	1151	1137
25°	1103	1135	1122
30°	1080	1117	1107
35°	1056	1098	1088
40°	1029	1076	1062
45°	1000	1050	1030
50°	970	1017	990
55°	935	978	948
60°	895	932	903
65°	843	876	844
70°	776	807	767
75°	683	714	673
80°	556	580	549
85°	386	412	401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	3.6
10°-20°	234.1	10.2
20°-30°	349.2	15.1
30°-40°	413.8	17.9
40°-50°	418.7	18.2
50°-60°	365.7	15.9
60°-70°	267.2	11.6
70°-80°	142.2	6.2
80°-90°	32.9	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°	665.9	28.9
0°-40°	1079.7	46.8
0°-60°	1864.1	80.8
0°-90°	2306.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2306.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	866	868	874	876	869	82
15°	820	826	834	839	828	231
25°	743	752	764	767	756	342
35°	643	653	668	673	662	402
45°	525	535	552	552	542	405
55°	398	406	417	411	404	356
65°	265	270	275	270	265	262
75°	131	134	137	132	129	140
85°	25	26	27	27	26	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.2	877.2	877.2	877.2	877.2
2.5°	870.4	873.2	876.1	877.4	870.3
5°	865.8	867.5	873.9	876.0	868.6
7.5°	858.3	860.8	867.1	868.0	860.9
10°	848.1	852.5	856.7	861.2	852.6
12.5°	835.0	840.9	848.1	848.9	842.3
15°	820.3	825.8	833.5	838.6	827.7
17.5°	803.8	809.1	819.2	820.1	813.5
20°	785.5	792.1	804.1	806.2	794.4
22.5°	764.6	773.5	783.6	785.6	776.9
25°	742.8	751.9	764.4	767.2	755.6
27.5°	719.9	728.7	742.7	744.7	734.9
30°	695.4	703.7	719.0	722.4	712.4
32.5°	670.6	678.8	695.8	698.6	689.0
35°	643.0	653.0	668.5	673.1	662.3
37.5°	614.8	624.6	642.2	646.4	634.7
40°	585.7	595.4	612.6	616.1	604.9
42.5°	555.9	565.6	584.0	584.6	575.3
45°	525.4	534.8	552.0	552.4	541.5
47.5°	494.6	504.0	519.3	517.6	507.3
50°	463.3	472.3	485.7	482.2	473.0
52.5°	430.9	439.6	452.3	446.7	438.0
55°	398.4	406.4	417.0	411.0	404.3
57.5°	365.6	373.7	381.9	375.7	369.9
60°	332.5	339.6	346.3	340.1	335.6
62.5°	298.9	305.0	310.8	304.8	300.6
65°	264.9	270.3	275.0	269.5	265.1
67.5°	231.1	235.6	240.0	234.3	229.7
70°	197.2	201.2	205.2	199.3	195.0
72.5°	163.9	167.3	170.9	165.2	161.5
75°	131.4	134.4	137.4	132.3	129.4
77.5°	100.4	103.0	105.0	101.8	99.0
80°	71.7	73.6	74.8	73.5	70.8
82.5°	46.1	47.4	48.1	48.0	46.2
85°	25.0	25.5	26.7	27.0	26.0
87.5°	9.7	10.3	10.6	11.4	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)