

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: P489090

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2LO-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: P489090
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-24-2-INS-A19156-LD4-2LO-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

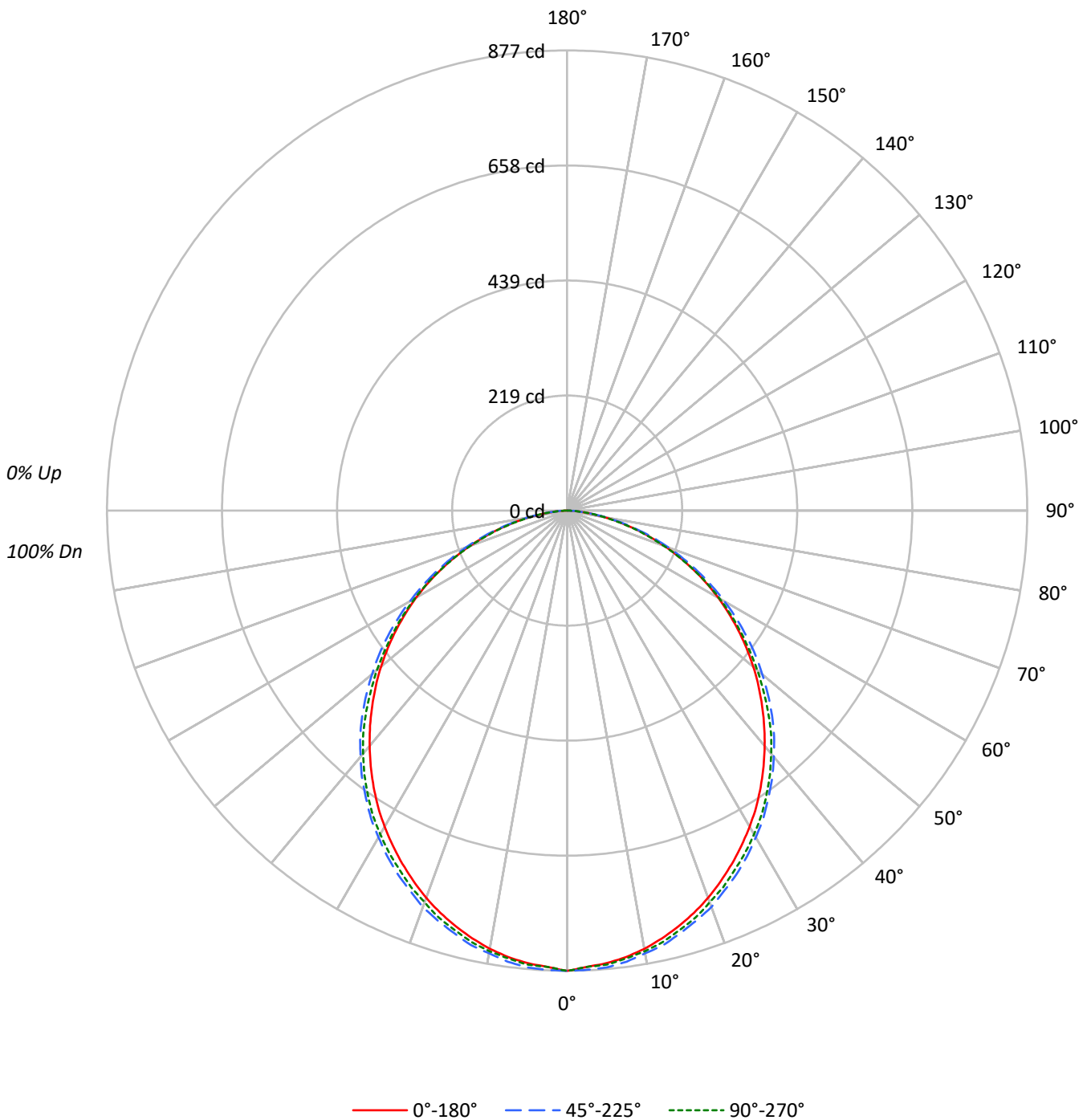
Lumens per Lamp: N/A
Luminaire Lumens: 2306.3 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	2361	2361	2361
5°	2339	2361	2346
10°	2317	2341	2330
15°	2285	2322	2306
20°	2249	2303	2275
25°	2205	2270	2244
30°	2161	2234	2214
35°	2112	2196	2176
40°	2057	2152	2125
45°	1999	2101	2061
50°	1940	2033	1980
55°	1869	1956	1897
60°	1790	1864	1806
65°	1687	1751	1688
70°	1552	1614	1534
75°	1366	1429	1345
80°	1111	1159	1097
85°	772	824	803



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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)