

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: P488386

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-1HI-20-120-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: P488386
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-12-2-INS-A19156-LD4-1HI-20-120-EDD-90
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

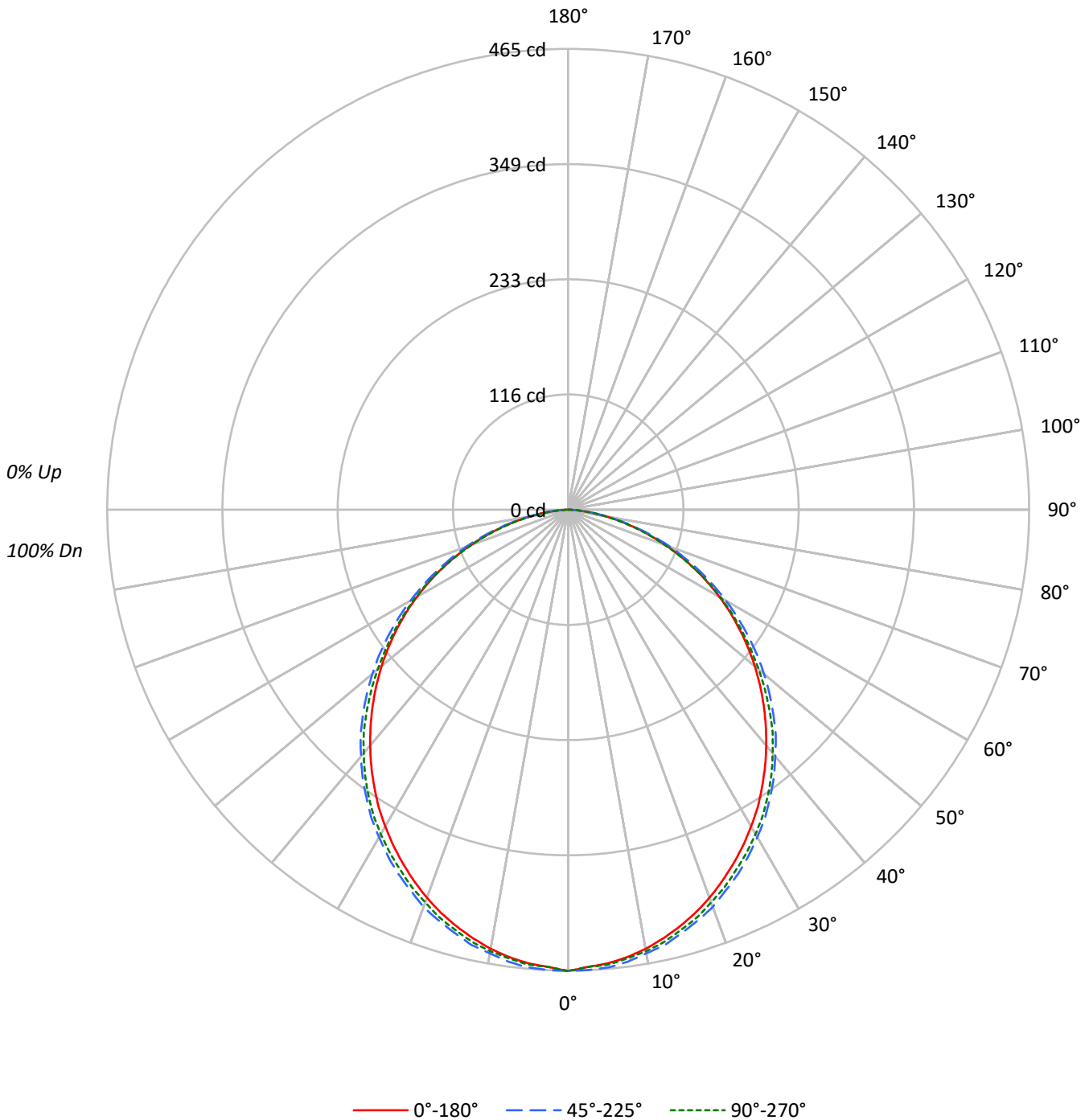
Lumens per Lamp: N/A
Luminaire Lumens: 1223.6 lumens
Efficiency: N/A
Efficacy: 56.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.6
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	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					100			
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87	85					85			
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2505	2505	2505
5°	2482	2505	2489
10°	2459	2484	2472
15°	2425	2464	2447
20°	2387	2443	2414
25°	2340	2408	2381
30°	2293	2371	2349
35°	2241	2330	2309
40°	2183	2283	2255
45°	2122	2229	2187
50°	2058	2158	2101
55°	1984	2076	2013
60°	1899	1977	1917
65°	1789	1858	1791
70°	1646	1714	1629
75°	1449	1516	1429
80°	1178	1230	1165
85°	821	877	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	3.6
10°-20°	124.2	10.2
20°-30°	185.3	15.1
30°-40°	219.5	17.9
40°-50°	222.1	18.2
50°-60°	194.0	15.9
60°-70°	141.8	11.6
70°-80°	75.4	6.2
80°-90°	17.4	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°	353.3	28.9
0°-40°	572.8	46.8
0°-60°	989.0	80.8
0°-90°	1223.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1223.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	465	465	465	465	465	
5°	459	460	464	465	461	44
15°	435	438	442	445	439	123
25°	394	399	406	407	401	182
35°	341	346	355	357	351	213
45°	279	284	293	293	287	215
55°	211	216	221	218	214	189
65°	140	143	146	143	141	139
75°	70	71	73	70	69	74
85°	13	14	14	14	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	465.4	465.4	465.4	465.4	465.4
2.5°	461.8	463.3	464.8	465.5	461.7
5°	459.4	460.2	463.7	464.7	460.8
7.5°	455.4	456.7	460.0	460.5	456.7
10°	449.9	452.3	454.5	456.9	452.3
12.5°	443.0	446.2	449.9	450.4	446.9
15°	435.2	438.1	442.2	444.9	439.1
17.5°	426.5	429.3	434.6	435.1	431.6
20°	416.7	420.2	426.6	427.7	421.5
22.5°	405.7	410.4	415.7	416.8	412.2
25°	394.1	398.9	405.5	407.0	400.9
27.5°	382.0	386.6	394.0	395.1	389.9
30°	369.0	373.3	381.5	383.3	378.0
32.5°	355.8	360.1	369.2	370.7	365.5
35°	341.1	346.5	354.7	357.1	351.4
37.5°	326.2	331.4	340.7	342.9	336.7
40°	310.7	315.9	325.0	326.9	320.9
42.5°	294.9	300.1	309.9	310.1	305.2
45°	278.8	283.7	292.8	293.1	287.3
47.5°	262.4	267.4	275.5	274.6	269.2
50°	245.8	250.6	257.7	255.8	250.9
52.5°	228.6	233.2	240.0	237.0	232.4
55°	211.4	215.6	221.3	218.1	214.5
57.5°	194.0	198.3	202.6	199.3	196.2
60°	176.4	180.2	183.7	180.4	178.1
62.5°	158.6	161.8	164.9	161.7	159.5
65°	140.5	143.4	145.9	143.0	140.6
67.5°	122.6	125.0	127.3	124.3	121.9
70°	104.6	106.7	108.9	105.8	103.5
72.5°	86.9	88.8	90.7	87.7	85.7
75°	69.7	71.3	72.9	70.2	68.7
77.5°	53.3	54.6	55.7	54.0	52.5
80°	38.0	39.0	39.7	39.0	37.6
82.5°	24.4	25.2	25.5	25.5	24.5
85°	13.3	13.5	14.2	14.3	13.8
87.5°	5.1	5.5	5.6	6.1	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)