

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: P489064

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1STD-35-120-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: P489064
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-LD4-1STD-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

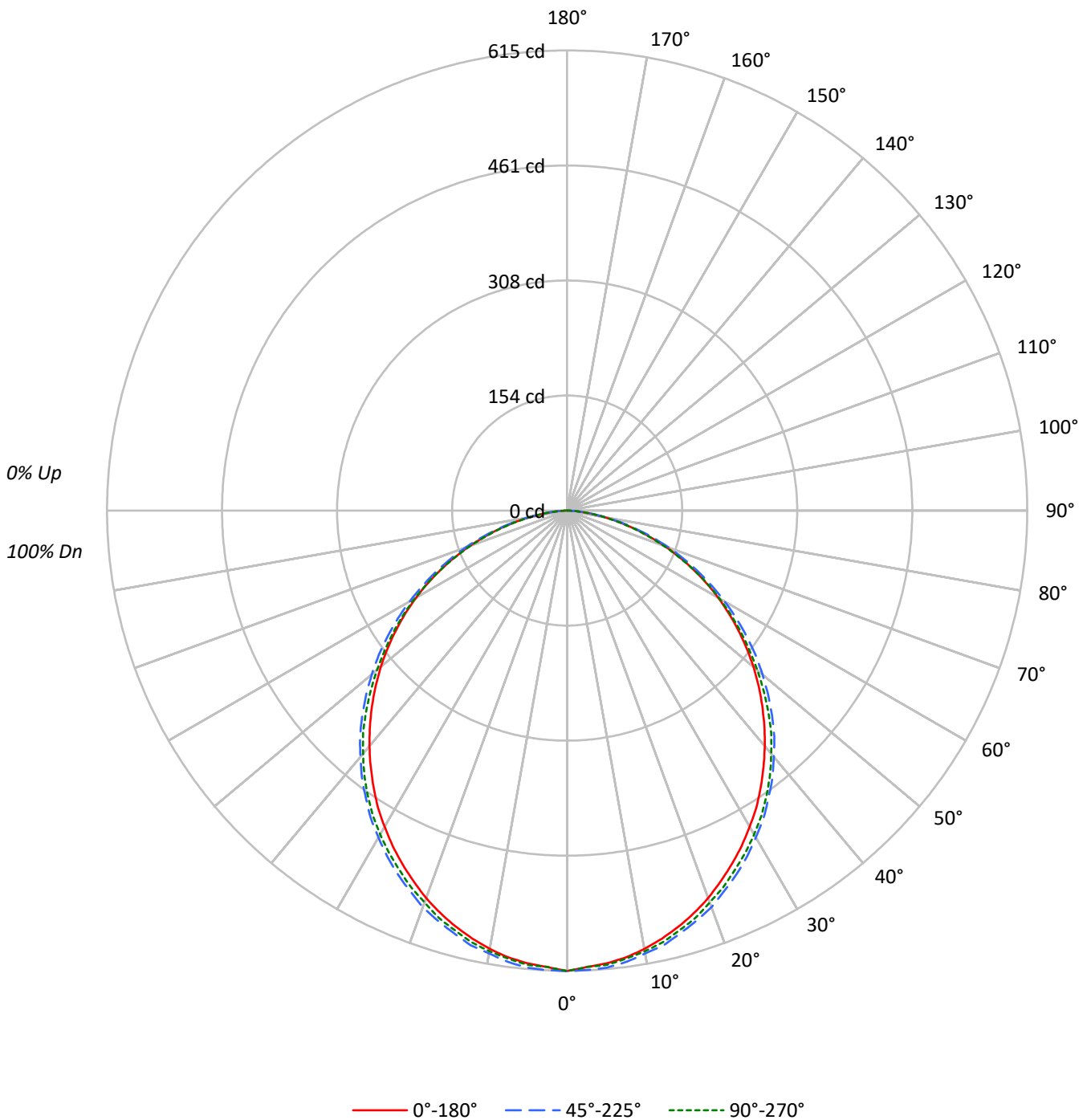
Lumens per Lamp: N/A
Luminaire Lumens: 1618.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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°	1656	1656	1656
5°	1641	1656	1646
10°	1626	1642	1634
15°	1603	1629	1618
20°	1578	1615	1596
25°	1547	1592	1574
30°	1516	1567	1553
35°	1482	1541	1526
40°	1443	1510	1491
45°	1403	1474	1446
50°	1361	1426	1389
55°	1311	1373	1331
60°	1256	1308	1267
65°	1183	1228	1184
70°	1089	1133	1076
75°	959	1002	944
80°	779	814	770
85°	543	577	565



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	3.6
10°-20°	164.3	10.2
20°-30°	245.0	15.1
30°-40°	290.3	17.9
40°-50°	293.7	18.2
50°-60°	256.5	15.9
60°-70°	187.5	11.6
70°-80°	99.7	6.2
80°-90°	23.1	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°	467.2	28.9
0°-40°	757.5	46.8
0°-60°	1307.7	80.8
0°-90°	1618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1618.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	607	609	613	614	609	58
15°	576	579	585	588	581	162
25°	521	528	536	538	530	240
35°	451	458	469	472	465	282
45°	369	375	387	388	380	284
55°	280	285	293	288	284	250
65°	186	190	193	189	186	184
75°	92	94	96	93	91	98
85°	18	18	19	19	18	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.4	615.4	615.4	615.4	615.4
2.5°	610.6	612.6	614.7	615.6	610.6
5°	607.4	608.6	613.1	614.5	609.3
7.5°	602.2	603.9	608.3	609.0	604.0
10°	595.0	598.1	601.0	604.2	598.1
12.5°	585.8	590.0	595.0	595.6	590.9
15°	575.5	579.3	584.8	588.3	580.7
17.5°	563.9	567.7	574.7	575.4	570.7
20°	551.1	555.7	564.1	565.6	557.3
22.5°	536.4	542.7	549.7	551.1	545.0
25°	521.1	527.5	536.2	538.2	530.1
27.5°	505.1	511.2	521.0	522.5	515.6
30°	487.9	493.7	504.4	506.8	499.8
32.5°	470.5	476.2	488.2	490.1	483.3
35°	451.1	458.1	469.0	472.2	464.6
37.5°	431.3	438.2	450.5	453.5	445.3
40°	410.9	417.7	429.8	432.2	424.4
42.5°	390.0	396.8	409.7	410.1	403.6
45°	368.6	375.2	387.2	387.5	379.9
47.5°	347.0	353.6	364.3	363.1	355.9
50°	325.0	331.3	340.7	338.3	331.8
52.5°	302.3	308.4	317.3	313.4	307.3
55°	279.5	285.1	292.6	288.4	283.6
57.5°	256.5	262.2	267.9	263.6	259.5
60°	233.3	238.3	243.0	238.6	235.5
62.5°	209.7	214.0	218.0	213.8	210.9
65°	185.8	189.6	192.9	189.1	185.9
67.5°	162.1	165.3	168.4	164.4	161.1
70°	138.4	141.1	144.0	139.8	136.8
72.5°	115.0	117.4	119.9	115.9	113.3
75°	92.2	94.3	96.4	92.8	90.8
77.5°	70.5	72.3	73.7	71.4	69.4
80°	50.3	51.6	52.5	51.6	49.7
82.5°	32.3	33.3	33.7	33.7	32.4
85°	17.6	17.9	18.7	18.9	18.3
87.5°	6.8	7.2	7.4	8.0	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)