

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: P489106

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3HI-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: P489106
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-LD4-3HI-20-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

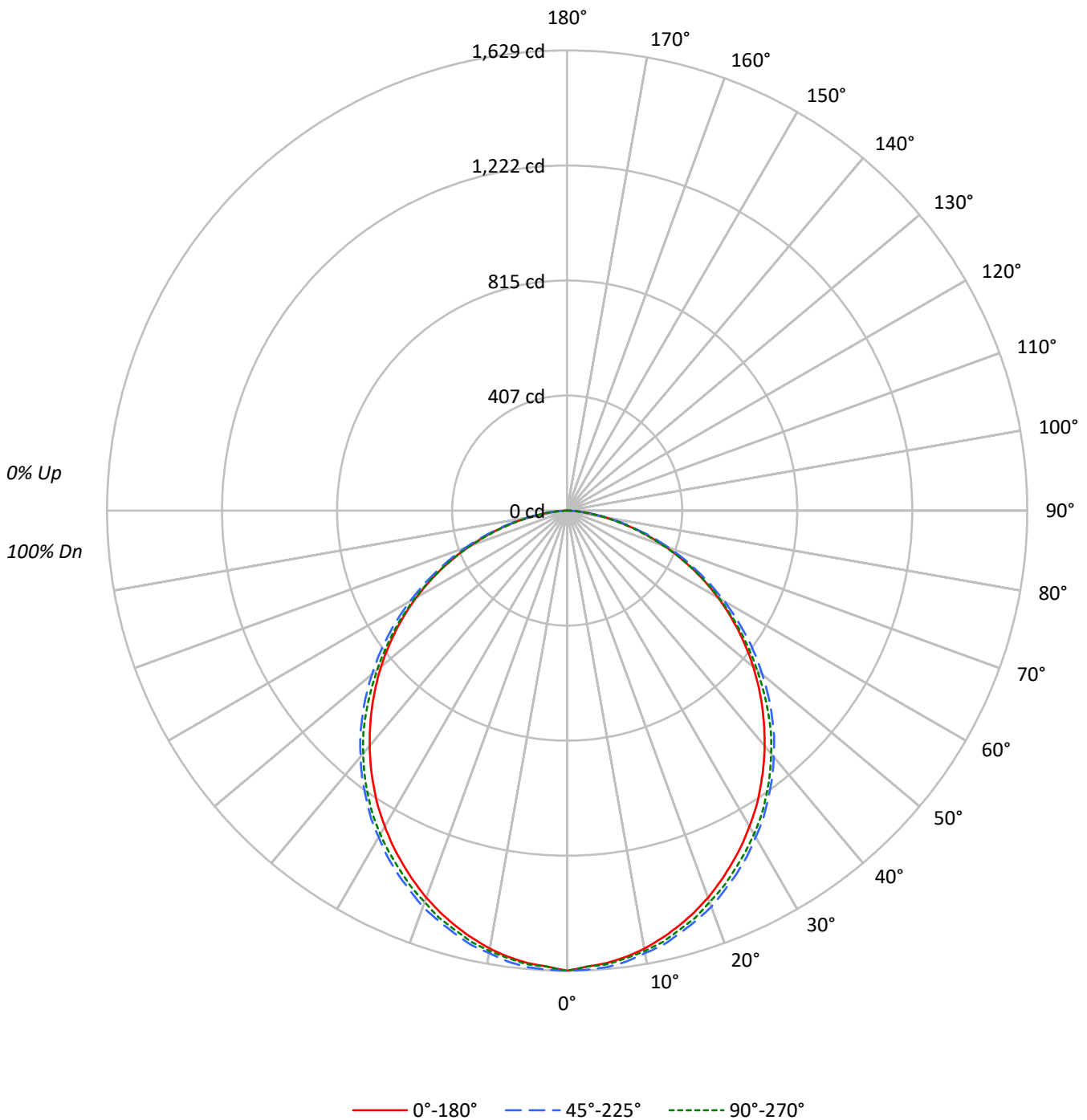
Lumens per Lamp: N/A
Luminaire Lumens: 4282.0 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 64.8
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°	4383	4383	4383
5°	4342	4383	4356
10°	4303	4346	4325
15°	4243	4311	4281
20°	4176	4275	4224
25°	4095	4214	4165
30°	4012	4148	4110
35°	3922	4077	4039
40°	3820	3996	3945
45°	3713	3900	3826
50°	3601	3775	3677
55°	3470	3633	3521
60°	3322	3461	3353
65°	3131	3251	3133
70°	2881	2998	2849
75°	2537	2651	2498
80°	2061	2151	2038
85°	1436	1531	1494



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.4	3.6
10°-20°	434.7	10.2
20°-30°	648.3	15.1
30°-40°	768.3	17.9
40°-50°	777.4	18.2
50°-60°	678.9	15.9
60°-70°	496.1	11.6
70°-80°	264.0	6.2
80°-90°	61.0	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°	1236.4	28.9
0°-40°	2004.6	46.8
0°-60°	3460.9	80.8
0°-90°	4282.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4282.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1629	1629	1629	1629	1629	
5°	1608	1611	1623	1626	1613	152
15°	1523	1533	1548	1557	1537	429
25°	1379	1396	1419	1424	1403	635
35°	1194	1212	1241	1250	1230	747
45°	976	993	1025	1026	1005	753
55°	740	755	774	763	751	661
65°	492	502	511	500	492	487
75°	244	250	255	246	240	259
85°	46	47	50	50	48	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1628.7	1628.7	1628.7	1628.7	1628.7
2.5°	1616.0	1621.3	1626.7	1629.1	1615.8
5°	1607.5	1610.6	1622.6	1626.3	1612.6
7.5°	1593.6	1598.2	1609.9	1611.6	1598.3
10°	1574.6	1582.7	1590.5	1599.0	1582.9
12.5°	1550.3	1561.4	1574.6	1576.1	1563.9
15°	1523.0	1533.2	1547.6	1556.9	1536.7
17.5°	1492.5	1502.3	1521.0	1522.7	1510.4
20°	1458.3	1470.6	1493.0	1496.9	1475.0
22.5°	1419.7	1436.1	1454.8	1458.5	1442.4
25°	1379.1	1396.1	1419.1	1424.4	1402.9
27.5°	1336.7	1353.0	1378.9	1382.7	1364.5
30°	1291.2	1306.5	1335.0	1341.3	1322.8
32.5°	1245.0	1260.3	1291.9	1297.1	1279.2
35°	1193.8	1212.5	1241.1	1249.8	1229.6
37.5°	1141.5	1159.7	1192.3	1200.1	1178.4
40°	1087.4	1105.4	1137.5	1143.9	1123.0
42.5°	1032.1	1050.1	1084.3	1085.4	1068.1
45°	975.6	992.9	1024.8	1025.6	1005.4
47.5°	918.2	935.7	964.2	961.0	942.0
50°	860.2	876.8	901.8	895.3	878.2
52.5°	800.1	816.2	839.8	829.3	813.2
55°	739.7	754.6	774.3	763.1	750.6
57.5°	678.8	693.9	709.0	697.6	686.8
60°	617.3	630.6	643.0	631.4	623.1
62.5°	554.9	566.3	577.0	565.9	558.1
65°	491.8	501.8	510.6	500.4	492.1
67.5°	429.0	437.5	445.6	435.1	426.4
70°	366.2	373.5	381.0	370.1	362.1
72.5°	304.3	310.7	317.3	306.8	299.8
75°	244.0	249.6	255.0	245.7	240.3
77.5°	186.5	191.2	195.0	189.0	183.8
80°	133.0	136.6	138.8	136.4	131.5
82.5°	85.5	88.1	89.3	89.1	85.9
85°	46.5	47.3	49.6	50.1	48.4
87.5°	18.0	19.2	19.7	21.2	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)