

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: P489073

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2HI-27-120-EDD**

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: P489073
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-LD4-2HI-27-120-EDD
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

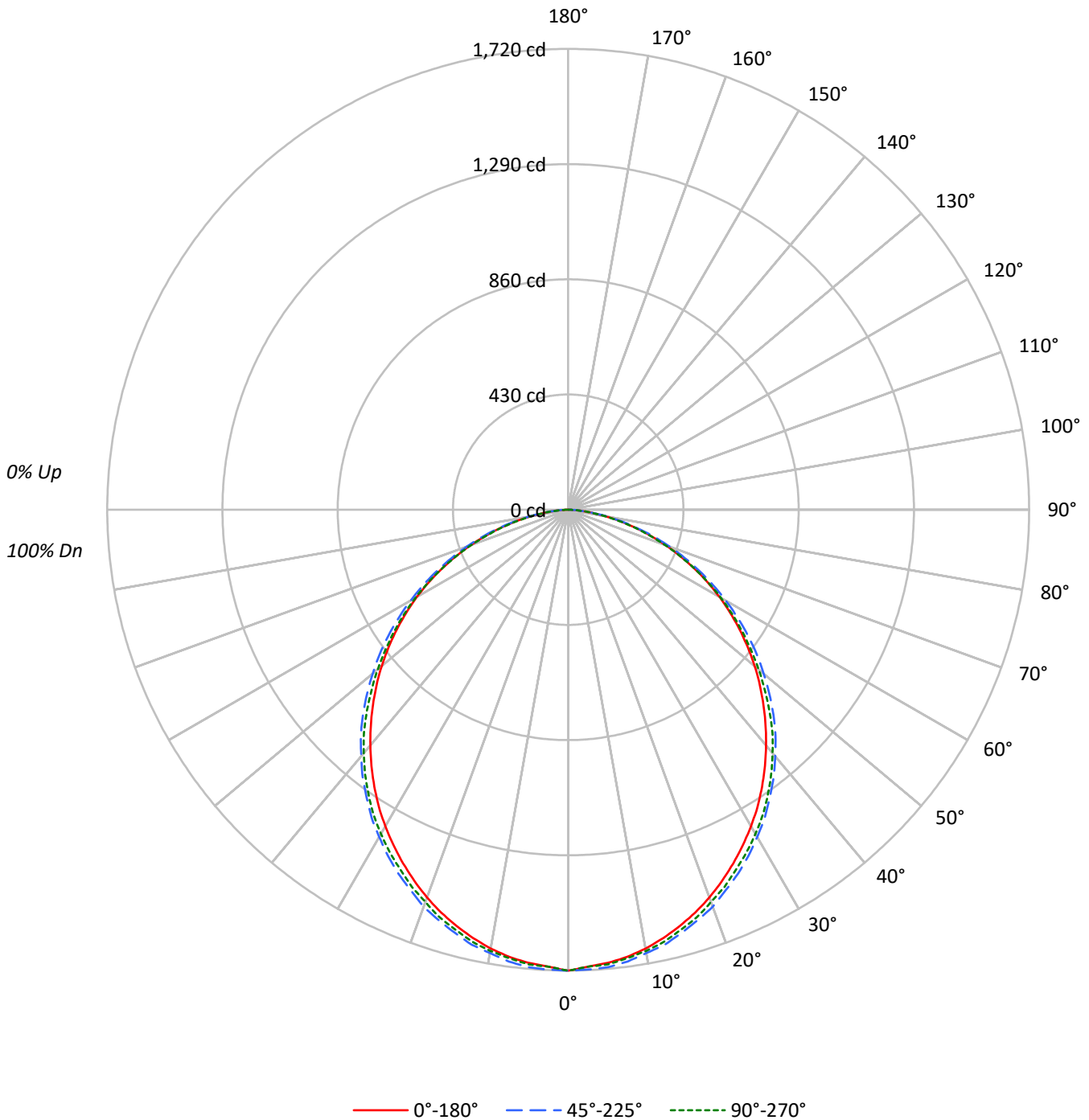
Lumens per Lamp: N/A
Luminaire Lumens: 4523.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 43.2
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°	4630	4630	4630
5°	4587	4630	4601
10°	4545	4591	4569
15°	4482	4554	4522
20°	4411	4516	4462
25°	4325	4451	4400
30°	4238	4382	4341
35°	4142	4307	4267
40°	4035	4221	4167
45°	3922	4120	4042
50°	3804	3988	3883
55°	3666	3837	3719
60°	3510	3655	3542
65°	3308	3434	3310
70°	3043	3166	3009
75°	2680	2801	2639
80°	2177	2272	2152
85°	1516	1615	1578



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.0	3.6
10°-20°	459.2	10.2
20°-30°	684.8	15.1
30°-40°	811.5	17.9
40°-50°	821.1	18.2
50°-60°	717.1	15.9
60°-70°	524.0	11.6
70°-80°	278.8	6.2
80°-90°	64.4	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°	1306.0	28.9
0°-40°	2117.5	46.8
0°-60°	3655.7	80.8
0°-90°	4523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1720	1720	1720	1720	1720	
5°	1698	1701	1714	1718	1703	161
15°	1609	1620	1635	1645	1623	454
25°	1457	1475	1499	1505	1482	671
35°	1261	1281	1311	1320	1299	789
45°	1030	1049	1082	1083	1062	795
55°	781	797	818	806	793	698
65°	520	530	539	529	520	514
75°	258	264	269	260	254	274
85°	49	50	52	53	51	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1720.4	1720.4	1720.4	1720.4	1720.4
2.5°	1706.9	1712.5	1718.2	1720.7	1706.8
5°	1698.0	1701.2	1713.9	1717.9	1703.4
7.5°	1683.3	1688.1	1700.5	1702.3	1688.3
10°	1663.2	1671.8	1680.1	1689.0	1672.0
12.5°	1637.6	1649.2	1663.2	1664.8	1651.9
15°	1608.7	1619.5	1634.7	1644.6	1623.2
17.5°	1576.5	1586.9	1606.6	1608.4	1595.5
20°	1540.4	1553.3	1577.0	1581.1	1558.0
22.5°	1499.6	1516.9	1536.7	1540.6	1523.6
25°	1456.7	1474.6	1499.0	1504.6	1481.8
27.5°	1411.9	1429.1	1456.5	1460.5	1441.3
30°	1363.9	1380.0	1410.1	1416.7	1397.2
32.5°	1315.1	1331.2	1364.6	1370.1	1351.1
35°	1261.0	1280.7	1311.0	1320.1	1298.8
37.5°	1205.8	1225.0	1259.4	1267.6	1244.7
40°	1148.6	1167.6	1201.5	1208.3	1186.2
42.5°	1090.2	1109.2	1145.4	1146.4	1128.2
45°	1030.5	1048.8	1082.5	1083.4	1062.0
47.5°	969.9	988.4	1018.5	1015.1	995.0
50°	908.6	926.2	952.5	945.7	927.6
52.5°	845.1	862.2	887.1	876.0	858.9
55°	781.3	797.1	817.9	806.1	792.8
57.5°	717.0	732.9	748.9	736.9	725.4
60°	652.1	666.1	679.2	667.0	658.2
62.5°	586.1	598.1	609.4	597.8	589.5
65°	519.5	530.0	539.3	528.6	519.8
67.5°	453.1	462.1	470.7	459.6	450.4
70°	386.8	394.5	402.4	390.9	382.5
72.5°	321.4	328.2	335.2	324.1	316.7
75°	257.8	263.7	269.4	259.5	253.8
77.5°	197.0	202.0	206.0	199.7	194.1
80°	140.5	144.3	146.6	144.1	138.9
82.5°	90.3	93.0	94.3	94.1	90.7
85°	49.1	50.0	52.3	52.9	51.1
87.5°	19.0	20.3	20.8	22.4	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)