

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: P489608

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-50-120-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: P489608
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-24-4-INS-A19156-LD4-1STD-50-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

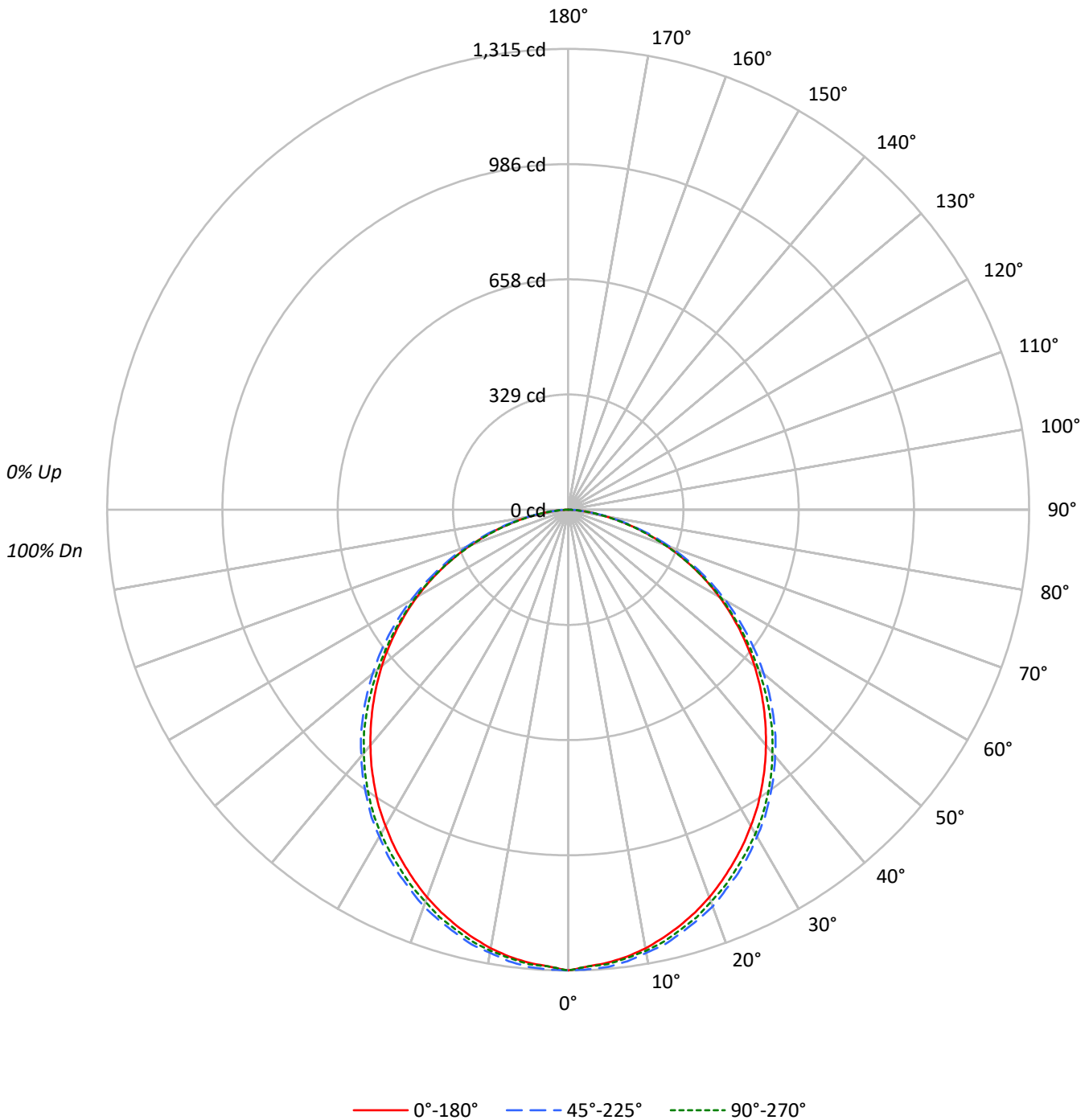
Lumens per Lamp: N/A
Luminaire Lumens: 3456.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
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°	1769	1769	1769
5°	1752	1769	1758
10°	1736	1754	1746
15°	1712	1740	1728
20°	1685	1725	1705
25°	1652	1700	1681
30°	1619	1674	1659
35°	1583	1645	1630
40°	1542	1613	1592
45°	1498	1574	1544
50°	1453	1523	1484
55°	1400	1466	1421
60°	1341	1397	1353
65°	1264	1312	1265
70°	1163	1210	1150
75°	1024	1070	1008
80°	832	868	822
85°	579	618	602



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	3.6
10°-20°	350.8	10.2
20°-30°	523.3	15.1
30°-40°	620.1	17.9
40°-50°	627.4	18.2
50°-60°	548.0	15.9
60°-70°	400.4	11.6
70°-80°	213.1	6.2
80°-90°	49.2	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°	997.9	28.9
0°-40°	1618.0	46.8
0°-60°	2793.4	80.8
0°-90°	3456.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3456.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1298	1300	1310	1313	1302	123
15°	1229	1238	1249	1257	1240	347
25°	1113	1127	1145	1150	1132	513
35°	964	979	1002	1009	992	603
45°	787	801	827	828	812	607
55°	597	609	625	616	606	534
65°	397	405	412	404	397	393
75°	197	202	206	198	194	209
85°	38	38	40	40	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.6	1314.6	1314.6	1314.6	1314.6
2.5°	1304.3	1308.6	1312.9	1314.9	1304.2
5°	1297.5	1299.9	1309.6	1312.7	1301.6
7.5°	1286.2	1289.9	1299.4	1300.7	1290.1
10°	1270.9	1277.5	1283.8	1290.6	1277.6
12.5°	1251.3	1260.2	1270.9	1272.1	1262.3
15°	1229.2	1237.5	1249.1	1256.6	1240.3
17.5°	1204.6	1212.5	1227.6	1229.0	1219.1
20°	1177.1	1186.9	1205.0	1208.2	1190.5
22.5°	1145.8	1159.1	1174.2	1177.2	1164.2
25°	1113.1	1126.8	1145.4	1149.7	1132.3
27.5°	1078.9	1092.0	1113.0	1116.0	1101.3
30°	1042.2	1054.5	1077.5	1082.6	1067.6
32.5°	1004.9	1017.2	1042.7	1047.0	1032.4
35°	963.5	978.6	1001.8	1008.7	992.4
37.5°	921.4	936.0	962.3	968.6	951.1
40°	877.7	892.2	918.1	923.3	906.4
42.5°	833.0	847.5	875.2	876.0	862.0
45°	787.4	801.4	827.1	827.8	811.5
47.5°	741.1	755.2	778.2	775.6	760.3
50°	694.3	707.7	727.8	722.6	708.8
52.5°	645.8	658.8	677.8	669.3	656.3
55°	597.0	609.1	625.0	615.9	605.8
57.5°	547.9	560.0	572.2	563.1	554.3
60°	498.3	509.0	519.0	509.6	502.9
62.5°	447.9	457.0	465.7	456.8	450.5
65°	396.9	405.0	412.1	403.9	397.2
67.5°	346.2	353.1	359.7	351.2	344.2
70°	295.6	301.5	307.5	298.7	292.3
72.5°	245.6	250.8	256.1	247.6	242.0
75°	197.0	201.5	205.9	198.3	193.9
77.5°	150.5	154.4	157.4	152.6	148.3
80°	107.4	110.3	112.0	110.1	106.1
82.5°	69.0	71.1	72.0	71.9	69.3
85°	37.5	38.2	40.0	40.4	39.0
87.5°	14.5	15.5	15.9	17.1	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)