

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: P489622

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-2LO-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: P489622
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-LD4-2LO-20-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

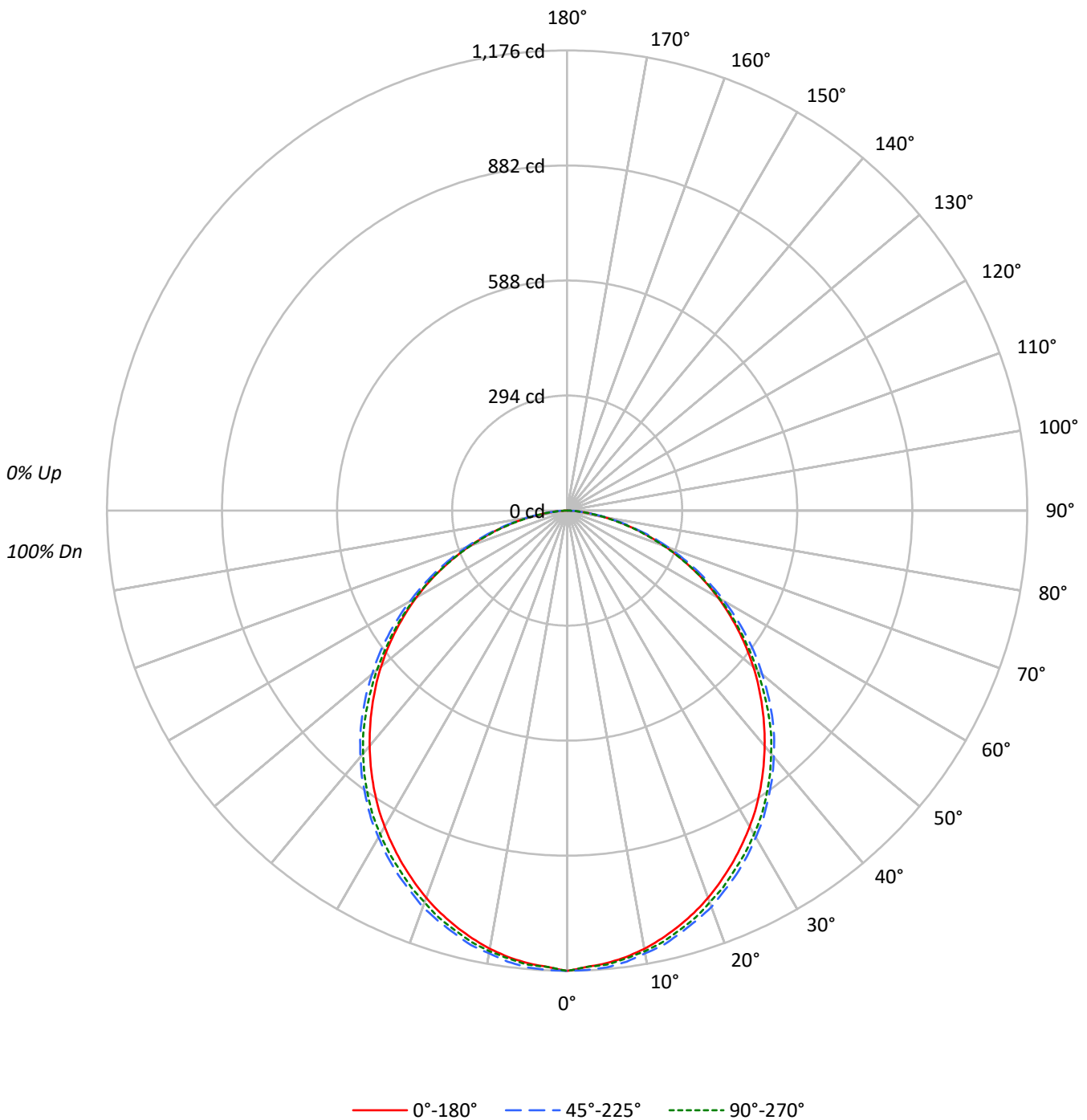
Lumens per Lamp: N/A
Luminaire Lumens: 3092.7 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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°	1583	1583	1583
5°	1568	1583	1573
10°	1554	1570	1562
15°	1532	1557	1546
20°	1508	1544	1525
25°	1479	1522	1504
30°	1449	1498	1484
35°	1416	1472	1459
40°	1379	1443	1425
45°	1341	1408	1382
50°	1301	1363	1328
55°	1253	1312	1272
60°	1200	1250	1211
65°	1131	1174	1131
70°	1041	1083	1029
75°	916	958	902
80°	745	777	736
85°	519	553	539



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.8	3.6
10°-20°	314.0	10.2
20°-30°	468.2	15.1
30°-40°	554.9	17.9
40°-50°	561.5	18.2
50°-60°	490.4	15.9
60°-70°	358.3	11.6
70°-80°	190.7	6.2
80°-90°	44.1	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°	893.0	28.9
0°-40°	1447.9	46.8
0°-60°	2499.7	80.8
0°-90°	3092.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3092.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1161	1163	1172	1175	1165	110
15°	1100	1107	1118	1124	1110	310
25°	996	1008	1025	1029	1013	459
35°	862	876	896	903	888	539
45°	705	717	740	741	726	544
55°	534	545	559	551	542	478
65°	355	362	369	361	355	351
75°	176	180	184	178	174	187
85°	34	34	36	36	35	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1176.4	1176.4	1176.4	1176.4	1176.4
2.5°	1167.2	1171.0	1174.9	1176.6	1167.0
5°	1161.0	1163.2	1171.9	1174.6	1164.7
7.5°	1151.0	1154.3	1162.7	1164.0	1154.4
10°	1137.3	1143.1	1148.8	1154.9	1143.3
12.5°	1119.7	1127.7	1137.3	1138.4	1129.5
15°	1100.0	1107.4	1117.8	1124.5	1109.9
17.5°	1077.9	1085.0	1098.5	1099.8	1090.9
20°	1053.3	1062.1	1078.3	1081.1	1065.3
22.5°	1025.4	1037.2	1050.7	1053.4	1041.8
25°	996.1	1008.3	1025.0	1028.8	1013.2
27.5°	965.4	977.2	995.9	998.6	985.5
30°	932.6	943.6	964.2	968.7	955.4
32.5°	899.2	910.3	933.1	936.9	923.9
35°	862.2	875.7	896.4	902.7	888.1
37.5°	824.5	837.6	861.1	866.8	851.1
40°	785.4	798.4	821.5	826.2	811.1
42.5°	745.4	758.4	783.2	783.9	771.4
45°	704.6	717.1	740.2	740.8	726.2
47.5°	663.2	675.8	696.4	694.1	680.3
50°	621.3	633.3	651.3	646.6	634.3
52.5°	577.9	589.5	606.6	599.0	587.3
55°	534.2	545.0	559.3	551.2	542.1
57.5°	490.2	501.2	512.1	503.9	496.0
60°	445.9	455.4	464.4	456.1	450.0
62.5°	400.8	409.0	416.7	408.7	403.1
65°	355.2	362.4	368.8	361.4	355.4
67.5°	309.8	316.0	321.8	314.2	308.0
70°	264.5	269.8	275.2	267.3	261.5
72.5°	219.8	224.4	229.2	221.6	216.6
75°	176.2	180.3	184.2	177.5	173.5
77.5°	134.7	138.1	140.8	136.5	132.7
80°	96.1	98.7	100.3	98.5	95.0
82.5°	61.8	63.6	64.5	64.3	62.0
85°	33.6	34.2	35.8	36.2	34.9
87.5°	13.0	13.8	14.2	15.3	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)