

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: P489602

Luminaire Tested: **CLM-24-4-INS-A19156-LD4-1STD-30-120-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: P489602
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-30-120-EDD-90
Description: 2X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

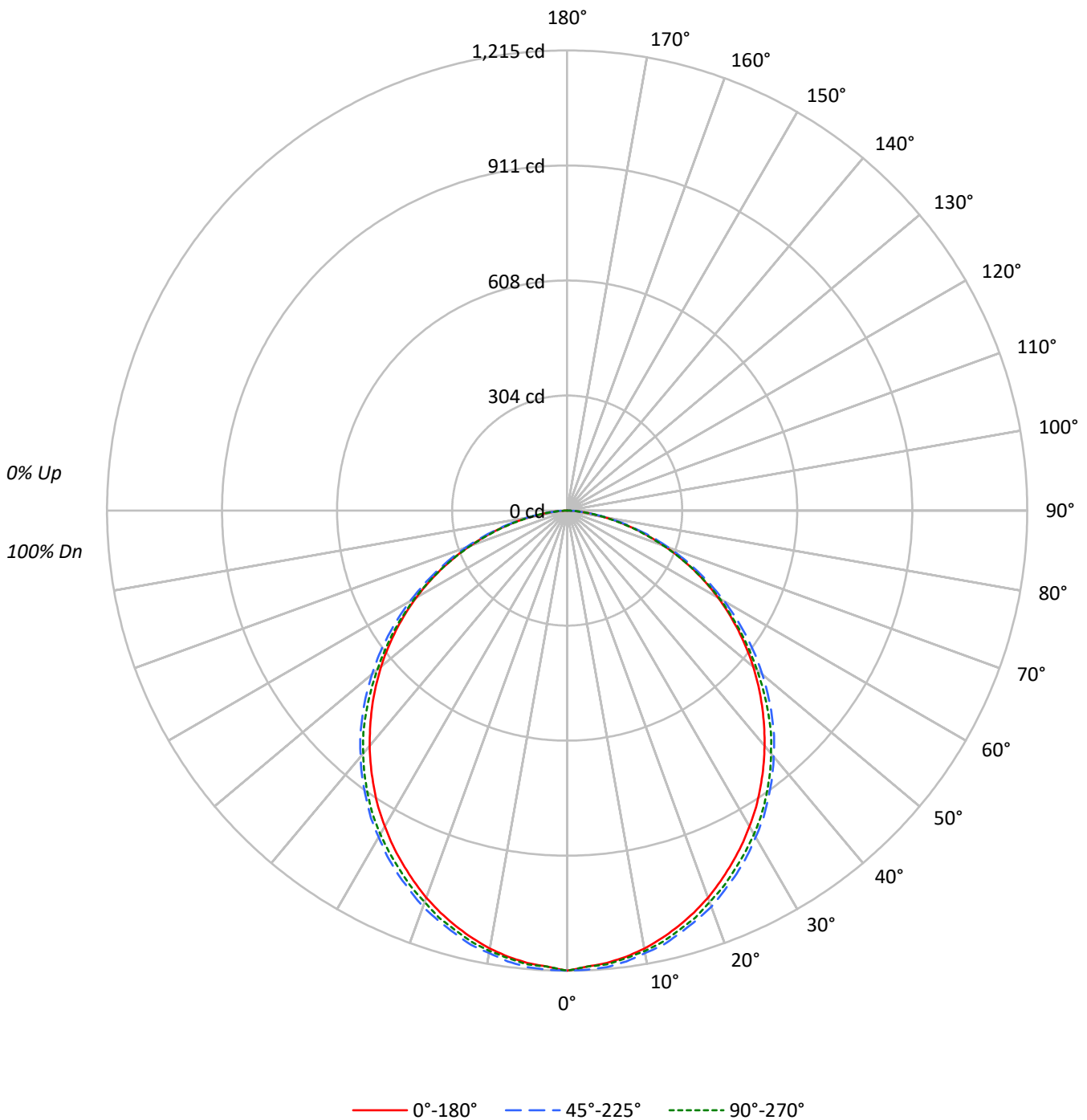
Lumens per Lamp: N/A
Luminaire Lumens: 3193.5 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1634	1634	1634
5°	1619	1634	1624
10°	1604	1621	1613
15°	1582	1608	1596
20°	1557	1594	1575
25°	1527	1571	1553
30°	1496	1547	1533
35°	1462	1520	1506
40°	1424	1490	1471
45°	1384	1454	1427
50°	1343	1408	1371
55°	1294	1355	1313
60°	1239	1290	1250
65°	1168	1212	1168
70°	1074	1118	1063
75°	946	989	932
80°	769	802	760
85°	536	571	557



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.4	3.6
10°-20°	324.2	10.2
20°-30°	483.5	15.1
30°-40°	573.0	17.9
40°-50°	579.7	18.2
50°-60°	506.3	15.9
60°-70°	370.0	11.6
70°-80°	196.9	6.2
80°-90°	45.5	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°	922.1	28.9
0°-40°	1495.0	46.8
0°-60°	2581.1	80.8
0°-90°	3193.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3193.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1215	1215	1215	1215	1215	
5°	1199	1201	1210	1213	1203	114
15°	1136	1143	1154	1161	1146	320
25°	1028	1041	1058	1062	1046	474
35°	890	904	926	932	917	557
45°	728	740	764	765	750	561
55°	552	563	578	569	560	493
65°	367	374	381	373	367	363
75°	182	186	190	183	179	193
85°	35	35	37	37	36	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1214.7	1214.7	1214.7	1214.7	1214.7
2.5°	1205.2	1209.1	1213.2	1214.9	1205.1
5°	1198.9	1201.2	1210.1	1212.9	1202.7
7.5°	1188.5	1191.9	1200.6	1201.9	1192.0
10°	1174.3	1180.4	1186.2	1192.5	1180.5
12.5°	1156.2	1164.5	1174.3	1175.5	1166.3
15°	1135.8	1143.4	1154.2	1161.2	1146.1
17.5°	1113.1	1120.4	1134.3	1135.6	1126.5
20°	1087.6	1096.7	1113.4	1116.4	1100.0
22.5°	1058.8	1071.1	1085.0	1087.8	1075.7
25°	1028.5	1041.2	1058.4	1062.3	1046.2
27.5°	996.9	1009.0	1028.4	1031.2	1017.6
30°	963.0	974.4	995.6	1000.3	986.5
32.5°	928.5	939.9	963.5	967.4	954.0
35°	890.3	904.2	925.6	932.1	917.0
37.5°	851.3	864.9	889.2	895.0	878.8
40°	811.0	824.4	848.3	853.1	837.6
42.5°	769.7	783.1	808.7	809.5	796.5
45°	727.6	740.5	764.3	764.9	749.9
47.5°	684.8	697.8	719.1	716.7	702.5
50°	641.5	653.9	672.5	667.7	654.9
52.5°	596.7	608.7	626.3	618.5	606.5
55°	551.7	562.8	577.5	569.1	559.8
57.5°	506.2	517.5	528.8	520.3	512.2
60°	460.4	470.3	479.5	470.9	464.7
62.5°	413.8	422.3	430.3	422.1	416.2
65°	366.8	374.2	380.8	373.2	367.0
67.5°	319.9	326.3	332.3	324.5	318.0
70°	273.1	278.6	284.1	276.0	270.1
72.5°	226.9	231.7	236.7	228.8	223.6
75°	182.0	186.2	190.2	183.3	179.2
77.5°	139.1	142.6	145.4	141.0	137.1
80°	99.2	101.9	103.5	101.8	98.1
82.5°	63.8	65.7	66.6	66.4	64.0
85°	34.7	35.3	37.0	37.3	36.1
87.5°	13.4	14.3	14.7	15.8	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)