

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: P489122

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-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: P489122
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-LD4-3LO-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

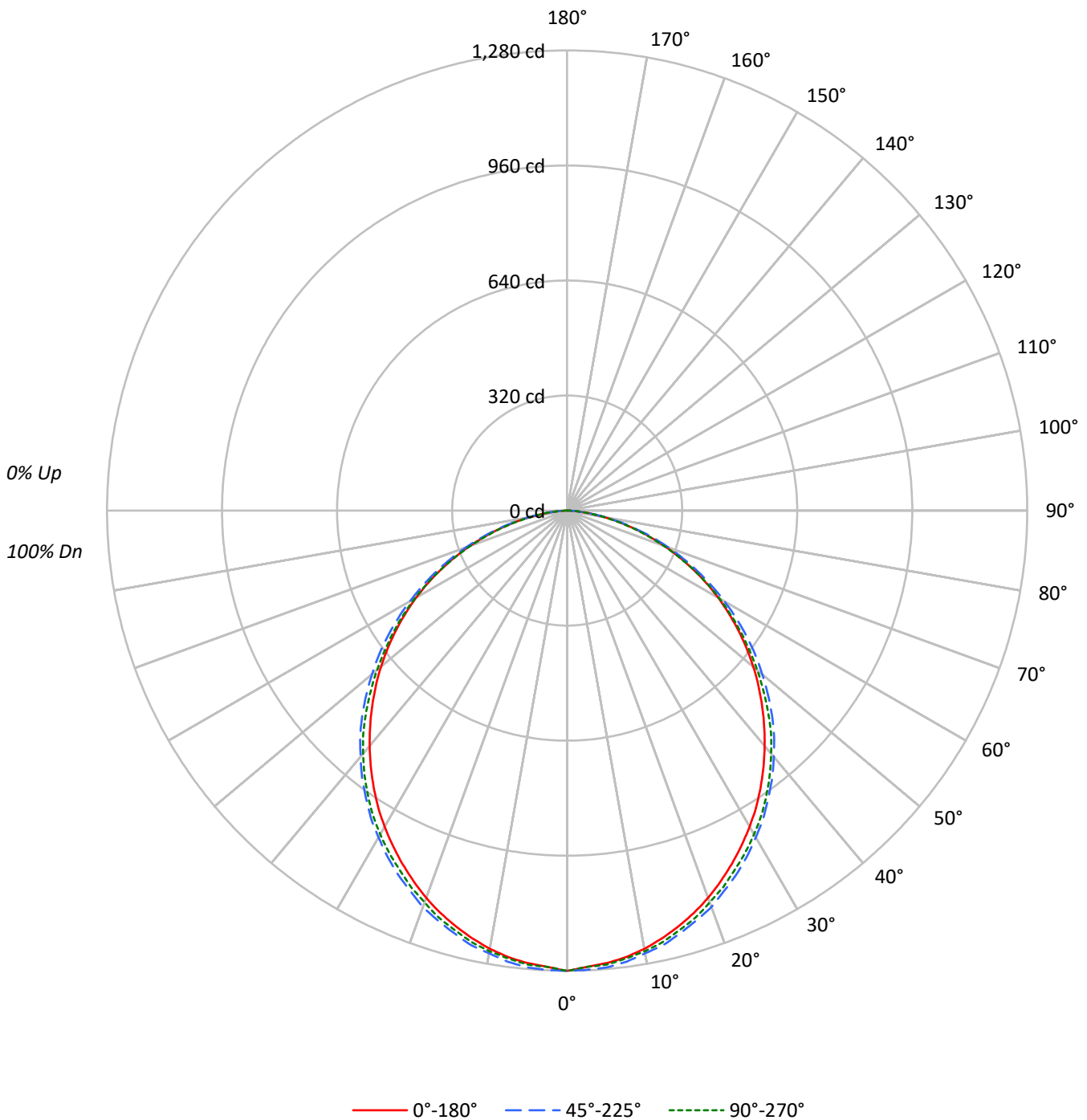
Lumens per Lamp: N/A
Luminaire Lumens: 3366.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35.1
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

TEST NUMBER: P489122

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-3LO-30-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489122

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-3LO-30-120-EDD-90

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°	3445	3445	3445
5°	3413	3445	3424
10°	3382	3416	3400
15°	3335	3389	3365
20°	3283	3361	3320
25°	3219	3312	3274
30°	3154	3261	3231
35°	3083	3205	3175
40°	3003	3141	3101
45°	2919	3066	3008
50°	2831	2968	2890
55°	2728	2856	2768
60°	2612	2720	2636
65°	2462	2556	2463
70°	2265	2356	2240
75°	1994	2085	1964
80°	1621	1691	1602
85°	1127	1204	1173



TEST NUMBER: P489122

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-3LO-30-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.6	3.6
10°-20°	341.7	10.2
20°-30°	509.6	15.1
30°-40°	603.9	17.9
40°-50°	611.1	18.2
50°-60°	533.7	15.9
60°-70°	390.0	11.6
70°-80°	207.5	6.2
80°-90°	48.0	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°	971.9	28.9
0°-40°	1575.8	46.8
0°-60°	2720.6	80.8
0°-90°	3366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3366.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1264	1266	1276	1278	1268	120
15°	1197	1205	1216	1224	1208	338
25°	1084	1097	1116	1120	1103	499
35°	938	953	976	982	967	587
45°	767	780	806	806	790	592
55°	582	593	609	600	590	520
65°	387	394	401	393	387	383
75°	192	196	200	193	189	204
85°	36	37	39	39	38	46
90°	0	0	0	0	0	



TEST NUMBER: P489122

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-3LO-30-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1280.3	1280.3	1280.3	1280.3	1280.3
2.5°	1270.3	1274.4	1278.7	1280.6	1270.2
5°	1263.6	1266.0	1275.5	1278.4	1267.6
7.5°	1252.7	1256.3	1265.5	1266.8	1256.4
10°	1237.8	1244.2	1250.3	1257.0	1244.3
12.5°	1218.7	1227.3	1237.8	1239.0	1229.4
15°	1197.2	1205.2	1216.5	1223.9	1208.0
17.5°	1173.2	1180.9	1195.6	1196.9	1187.3
20°	1146.4	1156.0	1173.6	1176.7	1159.5
22.5°	1116.0	1128.9	1143.6	1146.5	1133.8
25°	1084.1	1097.4	1115.6	1119.7	1102.8
27.5°	1050.7	1063.5	1084.0	1086.9	1072.6
30°	1015.0	1027.0	1049.4	1054.3	1039.8
32.5°	978.7	990.7	1015.5	1019.7	1005.5
35°	938.4	953.1	975.6	982.4	966.6
37.5°	897.3	911.6	937.2	943.4	926.3
40°	854.8	868.9	894.1	899.2	882.8
42.5°	811.3	825.4	852.4	853.2	839.6
45°	766.9	780.5	805.6	806.2	790.4
47.5°	721.8	735.5	757.9	755.4	740.5
50°	676.2	689.2	708.9	703.8	690.3
52.5°	628.9	641.6	660.2	651.9	639.2
55°	581.5	593.2	608.7	599.9	590.0
57.5°	533.6	545.4	557.3	548.4	539.8
60°	485.3	495.7	505.4	496.4	489.8
62.5°	436.2	445.1	453.5	444.9	438.7
65°	386.6	394.4	401.4	393.4	386.8
67.5°	337.2	343.9	350.3	342.0	335.2
70°	287.9	293.6	299.5	290.9	284.7
72.5°	239.2	244.2	249.4	241.2	235.7
75°	191.8	196.2	200.5	193.2	188.9
77.5°	146.6	150.3	153.3	148.6	144.5
80°	104.6	107.4	109.1	107.2	103.4
82.5°	67.2	69.2	70.2	70.0	67.5
85°	36.5	37.2	39.0	39.4	38.0
87.5°	14.1	15.1	15.5	16.7	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)