

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: P489100

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-35-120-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: P489100
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-LD4-2STD-35-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

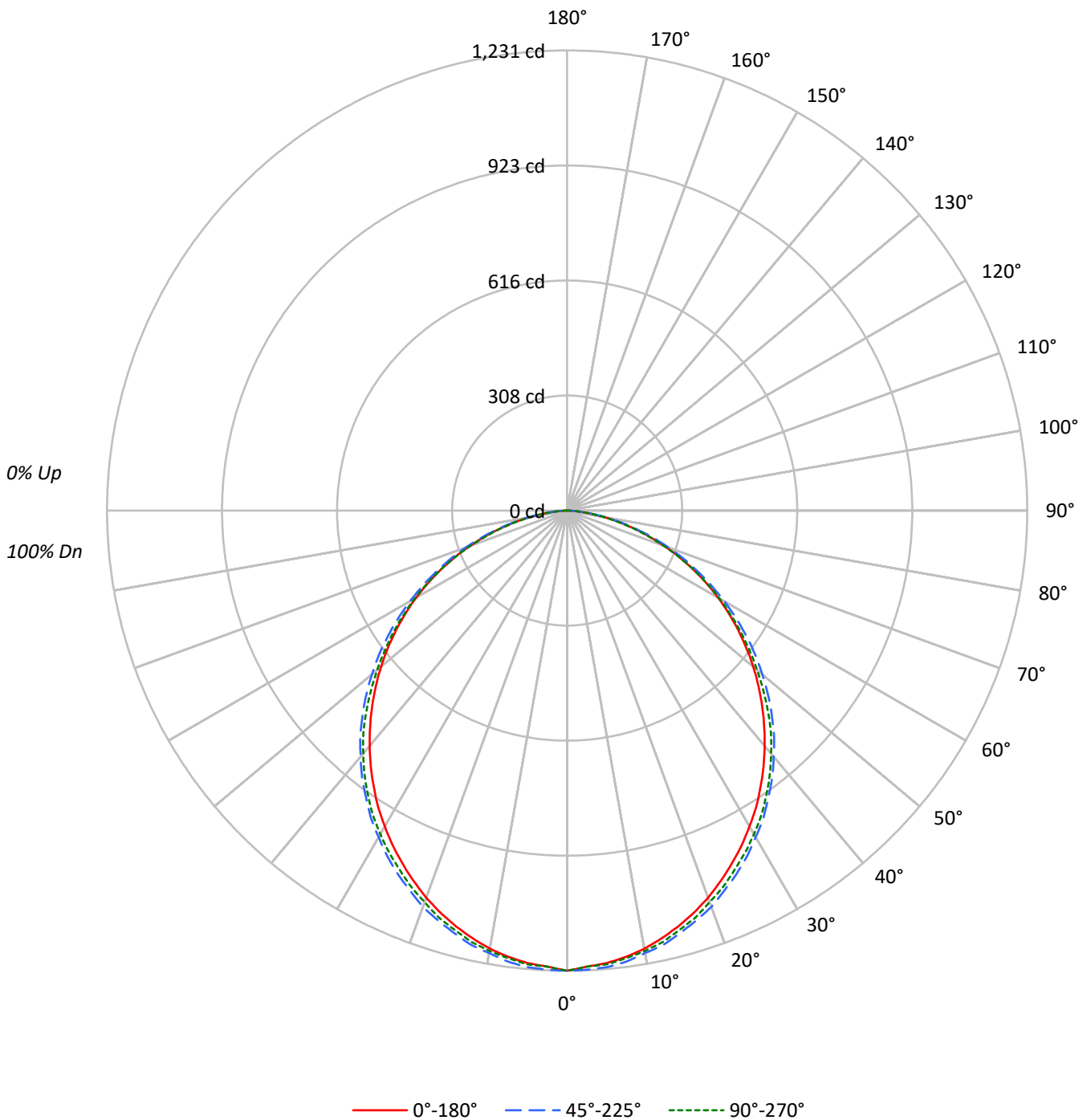
Lumens per Lamp: N/A
Luminaire Lumens: 3236.0 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	3312	3312	3312
5°	3281	3312	3292
10°	3252	3284	3269
15°	3207	3258	3236
20°	3156	3231	3192
25°	3094	3184	3148
30°	3032	3135	3106
35°	2964	3081	3052
40°	2887	3020	2981
45°	2806	2947	2892
50°	2722	2853	2778
55°	2623	2746	2661
60°	2511	2615	2534
65°	2366	2457	2368
70°	2177	2265	2153
75°	1917	2004	1888
80°	1557	1626	1540
85°	1084	1155	1127



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.9	3.6
10°-20°	328.5	10.2
20°-30°	489.9	15.1
30°-40°	580.6	17.9
40°-50°	587.5	18.2
50°-60°	513.1	15.9
60°-70°	374.9	11.6
70°-80°	199.5	6.2
80°-90°	46.1	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°	934.4	28.9
0°-40°	1515.0	46.8
0°-60°	2615.5	80.8
0°-90°	3236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1231	1231	1231	1231	1231	
5°	1215	1217	1226	1229	1219	115
15°	1151	1159	1170	1177	1161	324
25°	1042	1055	1072	1076	1060	480
35°	902	916	938	944	929	564
45°	737	750	774	775	760	569
55°	559	570	585	577	567	500
65°	372	379	386	378	372	368
75°	184	189	193	186	182	196
85°	35	36	37	38	36	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1230.9	1230.9	1230.9	1230.9	1230.9
2.5°	1221.2	1225.2	1229.3	1231.1	1221.1
5°	1214.8	1217.1	1226.2	1229.1	1218.7
7.5°	1204.3	1207.8	1216.6	1217.9	1207.9
10°	1190.0	1196.1	1202.0	1208.4	1196.2
12.5°	1171.6	1179.9	1190.0	1191.1	1181.9
15°	1151.0	1158.7	1169.6	1176.6	1161.4
17.5°	1127.9	1135.3	1149.4	1150.7	1141.5
20°	1102.1	1111.3	1128.3	1131.2	1114.7
22.5°	1072.9	1085.3	1099.4	1102.2	1090.1
25°	1042.2	1055.0	1072.5	1076.5	1060.2
27.5°	1010.2	1022.5	1042.1	1044.9	1031.2
30°	975.8	987.3	1008.9	1013.6	999.6
32.5°	940.9	952.4	976.3	980.3	966.7
35°	902.2	916.3	938.0	944.5	929.2
37.5°	862.7	876.4	901.0	906.9	890.5
40°	821.8	835.4	859.6	864.5	848.7
42.5°	780.0	793.6	819.5	820.2	807.2
45°	737.3	750.3	774.4	775.1	759.8
47.5°	693.9	707.1	728.7	726.2	711.9
50°	650.1	662.6	681.5	676.6	663.6
52.5°	604.7	616.8	634.7	626.7	614.5
55°	559.0	570.3	585.2	576.7	567.2
57.5°	513.0	524.4	535.8	527.2	519.0
60°	466.5	476.5	485.9	477.2	470.9
62.5°	419.3	427.9	436.0	427.7	421.8
65°	371.6	379.2	385.9	378.2	371.9
67.5°	324.2	330.6	336.8	328.8	322.3
70°	276.7	282.3	287.9	279.7	273.7
72.5°	229.9	234.8	239.8	231.9	226.6
75°	184.4	188.6	192.7	185.7	181.6
77.5°	140.9	144.5	147.3	142.9	138.9
80°	100.5	103.2	104.9	103.1	99.4
82.5°	64.6	66.6	67.5	67.3	64.9
85°	35.1	35.8	37.4	37.8	36.5
87.5°	13.6	14.5	14.9	16.0	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)