

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: P489098

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-2STD-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: P489098
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-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

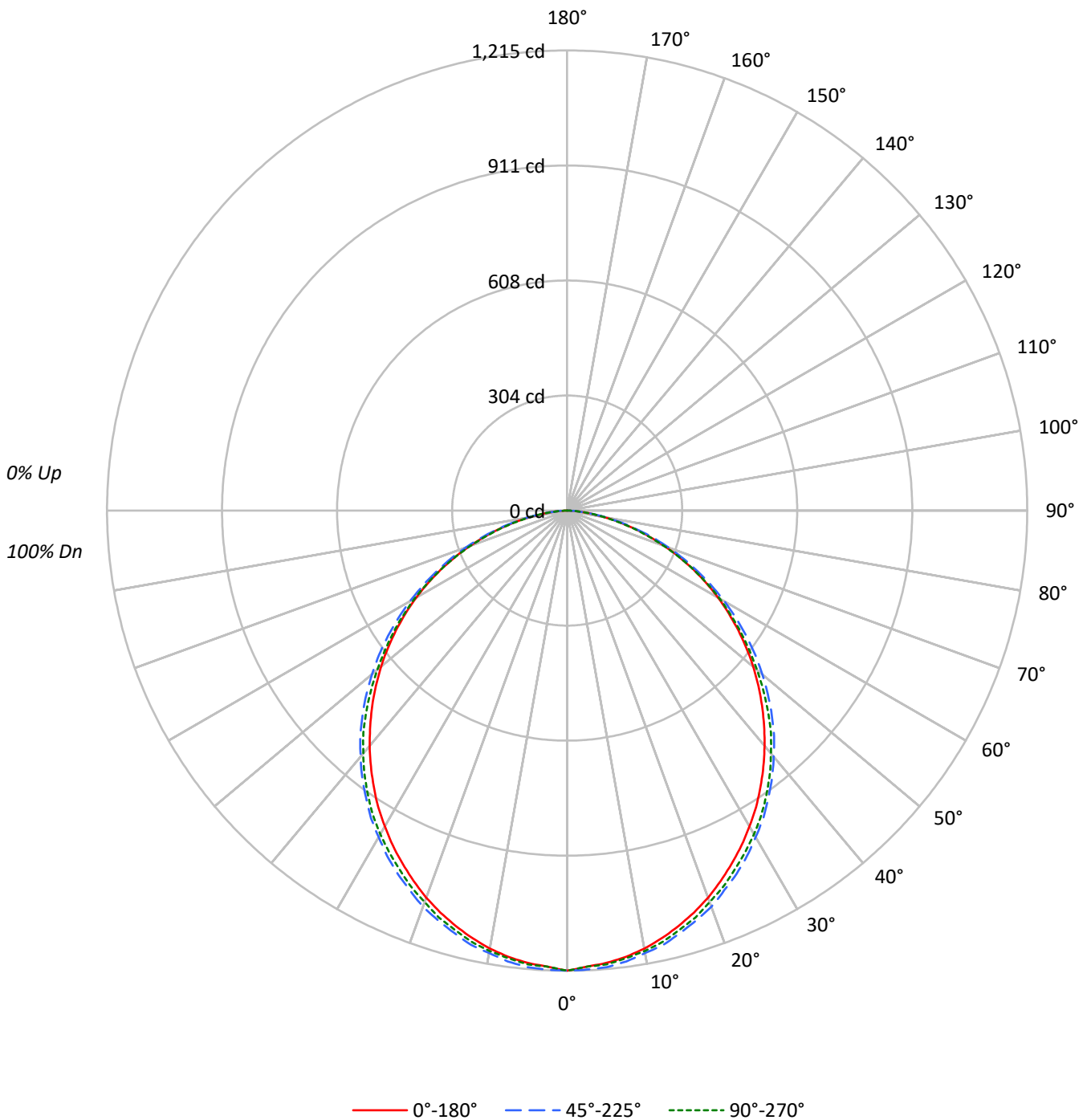
Lumens per Lamp: N/A
Luminaire Lumens: 3193.4 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): 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°	3269	3269	3269
5°	3238	3269	3249
10°	3209	3241	3226
15°	3164	3215	3193
20°	3115	3188	3150
25°	3054	3143	3106
30°	2992	3094	3065
35°	2925	3041	3012
40°	2849	2980	2942
45°	2769	2909	2853
50°	2686	2815	2742
55°	2588	2709	2626
60°	2478	2581	2501
65°	2336	2425	2337
70°	2149	2235	2125
75°	1892	1978	1863
80°	1537	1604	1520
85°	1071	1142	1115



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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°	572.9	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°	3193.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3193.4	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	1213.1	1214.9	1205.0
5°	1198.8	1201.1	1210.1	1212.9	1202.6
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	1164.4	1174.3	1175.4	1166.3
15°	1135.8	1143.4	1154.2	1161.1	1146.1
17.5°	1113.0	1120.4	1134.3	1135.6	1126.4
20°	1087.6	1096.7	1113.4	1116.3	1100.0
22.5°	1058.7	1071.0	1084.9	1087.7	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°	962.9	974.3	995.6	1000.3	986.5
32.5°	928.5	939.9	963.4	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	837.5
42.5°	769.7	783.1	808.7	809.4	796.5
45°	727.6	740.5	764.3	764.9	749.8
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	606.4
55°	551.6	562.8	577.5	569.1	559.7
57.5°	506.2	517.5	528.7	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	278.5	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	183.2	179.2
77.5°	139.1	142.6	145.4	141.0	137.1
80°	99.2	101.9	103.5	101.7	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)