

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: P488669

Luminaire Tested: **CLM-12-4-INS-A19156-LD4-1STD-35-120-EDD**

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: P488669
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-12-4-INS-A19156-LD4-1STD-35-120-EDD
Description: 1X4 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

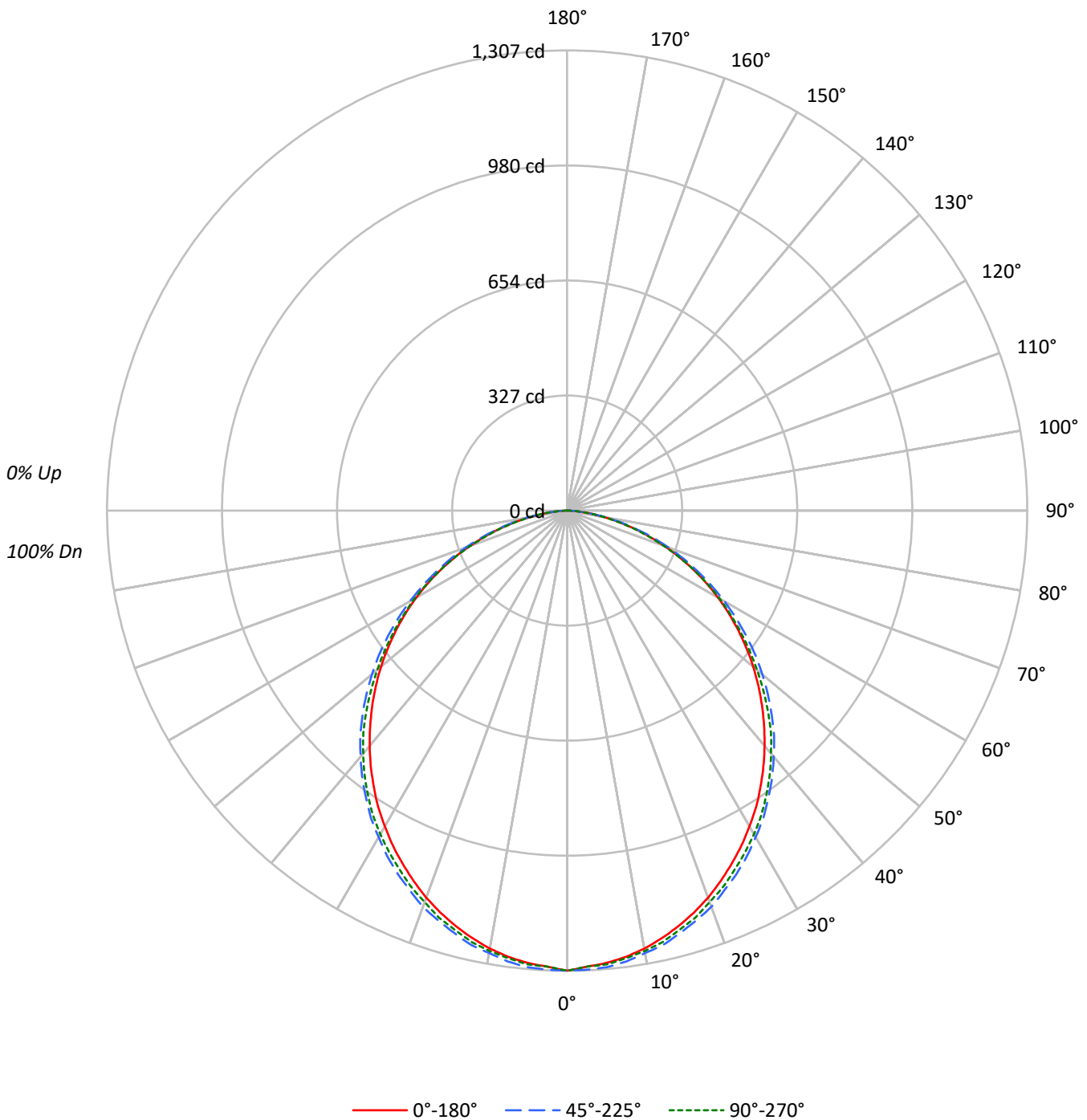
Lumens per Lamp: N/A
Luminaire Lumens: 3435.3 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P488669

CATALOG NUMBER: CLM-12-4-INS-A19156-LD4-1STD-35-120-EDD

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°	3516	3516	3516
5°	3484	3516	3495
10°	3452	3487	3470
15°	3404	3459	3435
20°	3351	3430	3389
25°	3285	3380	3342
30°	3219	3328	3297
35°	3146	3271	3241
40°	3065	3205	3165
45°	2979	3129	3070
50°	2889	3028	2949
55°	2784	2914	2825
60°	2666	2776	2690
65°	2512	2608	2514
70°	2312	2404	2286
75°	2036	2127	2005
80°	1654	1726	1635
85°	1152	1229	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.1	3.6
10°-20°	348.7	10.2
20°-30°	520.1	15.1
30°-40°	616.3	17.9
40°-50°	623.6	18.2
50°-60°	544.7	15.9
60°-70°	398.0	11.6
70°-80°	211.8	6.2
80°-90°	49.0	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°	991.9	28.9
0°-40°	1608.2	46.8
0°-60°	2776.6	80.8
0°-90°	3435.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3435.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1307	1307	1307	1307	1307	
5°	1290	1292	1302	1305	1294	122
15°	1222	1230	1242	1249	1233	344
25°	1106	1120	1138	1143	1126	510
35°	958	973	996	1003	986	599
45°	783	797	822	823	807	604
55°	593	605	621	612	602	530
65°	394	403	410	402	395	390
75°	196	200	205	197	193	208
85°	37	38	40	40	39	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1306.7	1306.7	1306.7	1306.7	1306.7
2.5°	1296.5	1300.7	1305.0	1306.9	1296.3
5°	1289.6	1292.1	1301.8	1304.8	1293.7
7.5°	1278.5	1282.2	1291.6	1292.9	1282.3
10°	1263.2	1269.8	1276.0	1282.8	1269.9
12.5°	1243.8	1252.6	1263.2	1264.5	1254.7
15°	1221.9	1230.0	1241.6	1249.1	1232.9
17.5°	1197.3	1205.2	1220.2	1221.6	1211.8
20°	1170.0	1179.8	1197.8	1200.9	1183.3
22.5°	1138.9	1152.1	1167.1	1170.1	1157.2
25°	1106.4	1120.0	1138.5	1142.8	1125.5
27.5°	1072.4	1085.4	1106.3	1109.3	1094.7
30°	1035.9	1048.1	1071.0	1076.0	1061.2
32.5°	998.9	1011.1	1036.4	1040.6	1026.2
35°	957.7	972.7	995.7	1002.7	986.5
37.5°	915.8	930.4	956.5	962.8	945.4
40°	872.4	886.8	912.5	917.7	901.0
42.5°	828.0	842.4	869.9	870.7	856.9
45°	782.7	796.6	822.1	822.8	806.6
47.5°	736.7	750.7	773.5	771.0	755.7
50°	690.1	703.4	723.4	718.3	704.5
52.5°	641.9	654.8	673.8	665.3	652.4
55°	593.4	605.4	621.2	612.2	602.1
57.5°	544.6	556.7	568.8	559.7	551.0
60°	495.3	505.9	515.8	506.6	499.9
62.5°	445.2	454.3	462.9	454.0	447.8
65°	394.5	402.6	409.6	401.5	394.8
67.5°	344.2	351.0	357.5	349.1	342.1
70°	293.8	299.6	305.6	296.9	290.5
72.5°	244.1	249.3	254.6	246.1	240.6
75°	195.8	200.3	204.6	197.1	192.8
77.5°	149.6	153.4	156.4	151.7	147.4
80°	106.7	109.6	111.4	109.5	105.5
82.5°	68.6	70.7	71.6	71.5	68.9
85°	37.3	38.0	39.8	40.2	38.8
87.5°	14.4	15.4	15.8	17.0	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)