

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: P489126

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-40-120-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: P489126
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-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

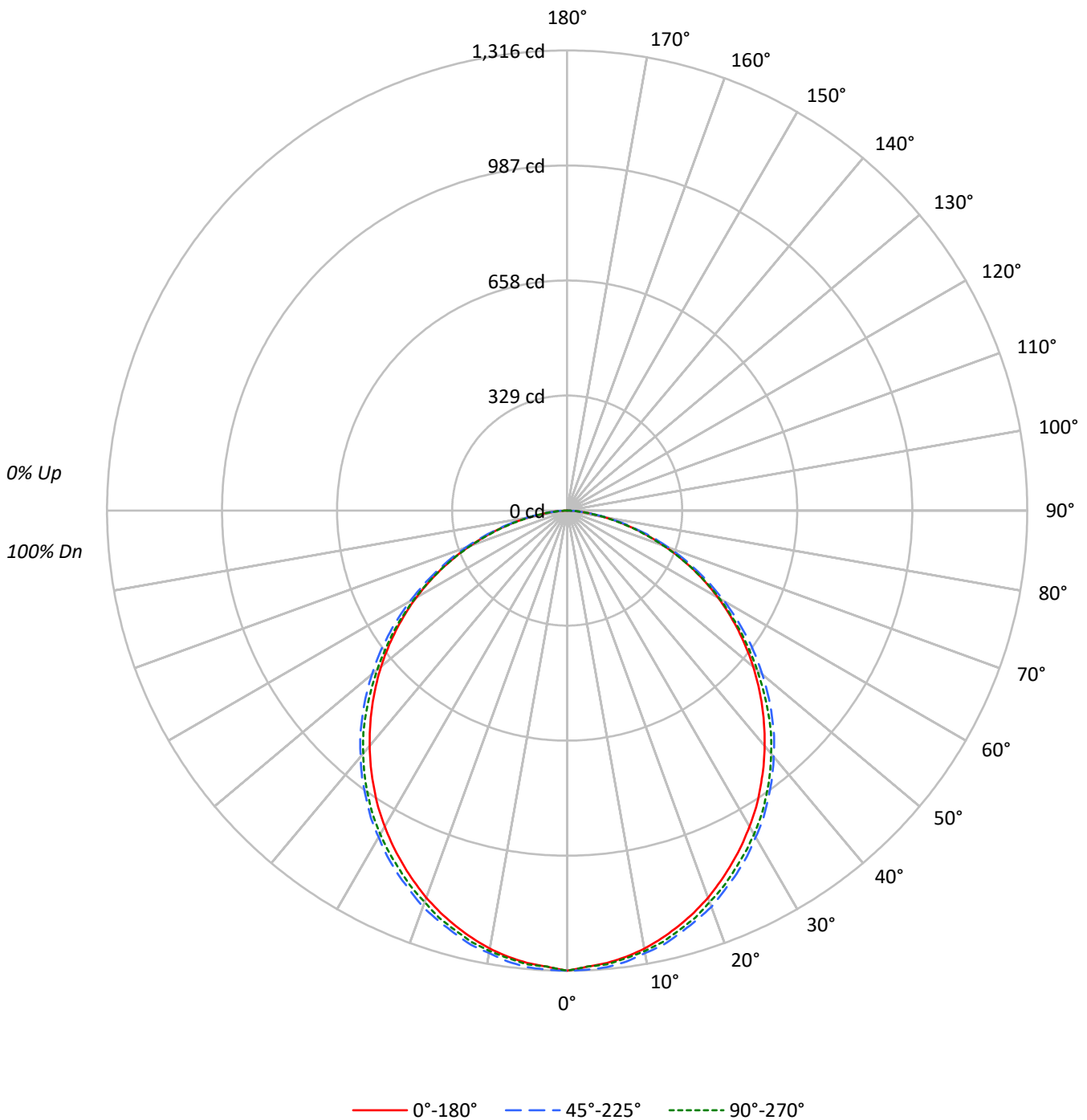
Lumens per Lamp: N/A
Luminaire Lumens: 3459.4 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	3541	3541	3541
5°	3508	3541	3519
10°	3476	3511	3494
15°	3428	3483	3459
20°	3374	3454	3412
25°	3308	3404	3365
30°	3242	3351	3321
35°	3168	3294	3263
40°	3086	3228	3187
45°	3000	3151	3091
50°	2909	3050	2970
55°	2804	2935	2845
60°	2684	2796	2709
65°	2530	2627	2532
70°	2327	2422	2302
75°	2049	2143	2018
80°	1666	1737	1646
85°	1161	1235	1207



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	3.6
10°-20°	351.2	10.2
20°-30°	523.8	15.1
30°-40°	620.7	17.9
40°-50°	628.0	18.2
50°-60°	548.5	15.9
60°-70°	400.8	11.6
70°-80°	213.3	6.2
80°-90°	49.3	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°	998.9	28.9
0°-40°	1619.5	46.8
0°-60°	2796.0	80.8
0°-90°	3459.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3459.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1316	1316	1316	1316	1316	
5°	1299	1301	1311	1314	1303	123
15°	1230	1239	1250	1258	1242	347
25°	1114	1128	1146	1151	1133	513
35°	964	980	1003	1010	993	603
45°	788	802	828	829	812	608
55°	598	610	626	616	606	534
65°	397	405	412	404	398	393
75°	197	202	206	198	194	210
85°	38	38	40	40	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.8	1315.8	1315.8	1315.8	1315.8
2.5°	1305.6	1309.8	1314.2	1316.1	1305.4
5°	1298.7	1301.2	1310.9	1313.9	1302.8
7.5°	1287.5	1291.2	1300.6	1302.0	1291.3
10°	1272.1	1278.7	1285.0	1291.8	1278.8
12.5°	1252.5	1261.4	1272.1	1273.3	1263.5
15°	1230.4	1238.6	1250.3	1257.8	1241.5
17.5°	1205.7	1213.7	1228.8	1230.1	1220.3
20°	1178.2	1188.1	1206.2	1209.3	1191.6
22.5°	1146.9	1160.2	1175.3	1178.3	1165.3
25°	1114.2	1127.9	1146.5	1150.8	1133.4
27.5°	1079.9	1093.1	1114.0	1117.0	1102.4
30°	1043.2	1055.5	1078.5	1083.6	1068.7
32.5°	1005.9	1018.2	1043.7	1048.0	1033.4
35°	964.5	979.5	1002.7	1009.7	993.4
37.5°	922.2	936.9	963.2	969.5	952.0
40°	878.5	893.0	918.9	924.2	907.3
42.5°	833.8	848.3	876.0	876.9	862.9
45°	788.2	802.1	827.9	828.6	812.3
47.5°	741.8	755.9	779.0	776.4	761.0
50°	694.9	708.4	728.5	723.3	709.5
52.5°	646.4	659.4	678.5	670.0	657.0
55°	597.6	609.7	625.6	616.5	606.4
57.5°	548.4	560.6	572.8	563.6	554.8
60°	498.7	509.4	519.5	510.1	503.4
62.5°	448.3	457.5	466.1	457.2	450.9
65°	397.3	405.4	412.5	404.3	397.6
67.5°	346.6	353.4	360.0	351.5	344.5
70°	295.8	301.7	307.8	299.0	292.6
72.5°	245.8	251.0	256.4	247.9	242.2
75°	197.1	201.7	206.1	198.5	194.1
77.5°	150.7	154.5	157.5	152.7	148.5
80°	107.5	110.4	112.1	110.2	106.2
82.5°	69.1	71.2	72.1	72.0	69.4
85°	37.6	38.2	40.0	40.4	39.1
87.5°	14.5	15.5	15.9	17.1	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)