

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: P489054

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-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: P489054
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-LD4-1LO-40-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

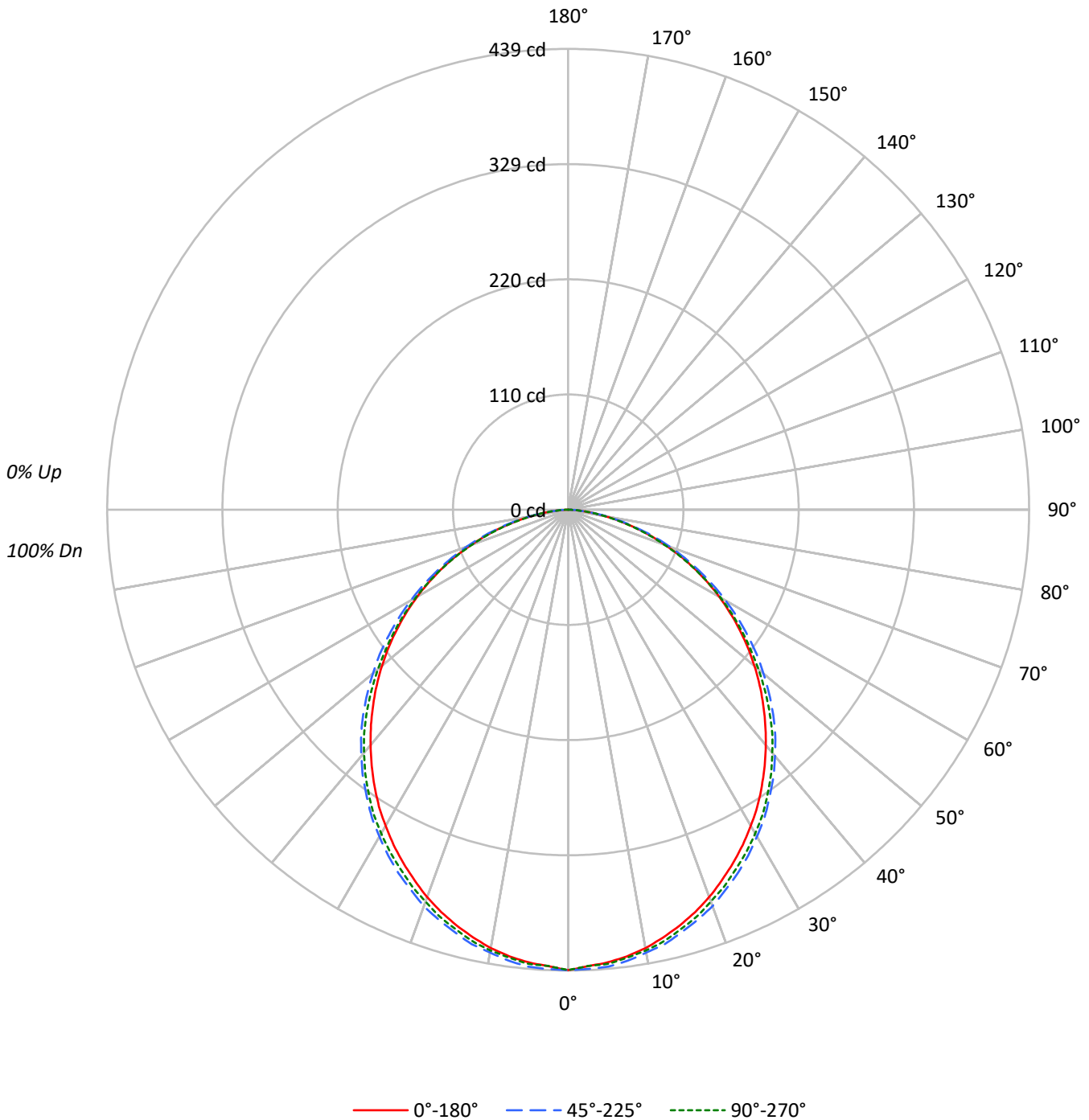
Lumens per Lamp: N/A
Luminaire Lumens: 1153.1 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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: P489054

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1LO-40-120-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P489054

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1LO-40-120-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°	1180	1180	1180
5°	1169	1180	1173
10°	1159	1170	1165
15°	1143	1161	1153
20°	1125	1151	1137
25°	1103	1135	1122
30°	1080	1117	1107
35°	1056	1098	1088
40°	1029	1076	1062
45°	1000	1050	1031
50°	970	1016	990
55°	935	978	948
60°	894	932	903
65°	843	876	844
70°	776	807	767
75°	683	714	673
80°	555	580	549
85°	386	411	401



TEST NUMBER: P489054

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1LO-40-120-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	3.6
10°-20°	117.1	10.2
20°-30°	174.6	15.1
30°-40°	206.9	17.9
40°-50°	209.3	18.2
50°-60°	182.8	15.9
60°-70°	133.6	11.6
70°-80°	71.1	6.2
80°-90°	16.4	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°	332.9	28.9
0°-40°	539.8	46.8
0°-60°	932.0	80.8
0°-90°	1153.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1153.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	439	439	439	439	439	
5°	433	434	437	438	434	41
15°	410	413	417	419	414	116
25°	371	376	382	384	378	171
35°	322	326	334	337	331	201
45°	263	267	276	276	271	203
55°	199	203	208	206	202	178
65°	132	135	138	135	132	131
75°	66	67	69	66	65	70
85°	12	13	13	14	13	16
90°	0	0	0	0	0	



TEST NUMBER: P489054

CATALOG NUMBER: CLM-24-2-INS-A19156-LD4-1LO-40-120-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	438.6	438.6	438.6	438.6	438.6
2.5°	435.2	436.6	438.0	438.7	435.1
5°	432.9	433.7	437.0	438.0	434.3
7.5°	429.1	430.4	433.5	434.0	430.4
10°	424.0	426.2	428.3	430.6	426.3
12.5°	417.5	420.5	424.0	424.4	421.1
15°	410.1	412.9	416.8	419.3	413.8
17.5°	401.9	404.6	409.6	410.0	406.7
20°	392.7	396.0	402.0	403.1	397.2
22.5°	382.3	386.7	391.8	392.8	388.4
25°	371.4	375.9	382.2	383.6	377.8
27.5°	360.0	364.3	371.3	372.3	367.4
30°	347.7	351.8	359.5	361.2	356.2
32.5°	335.3	339.4	347.9	349.3	344.5
35°	321.5	326.5	334.2	336.6	331.1
37.5°	307.4	312.3	321.1	323.2	317.3
40°	292.8	297.7	306.3	308.0	302.4
42.5°	277.9	282.8	292.0	292.3	287.6
45°	262.7	267.4	276.0	276.2	270.8
47.5°	247.3	252.0	259.6	258.8	253.7
50°	231.6	236.1	242.8	241.1	236.5
52.5°	215.5	219.8	226.2	223.3	219.0
55°	199.2	203.2	208.5	205.5	202.1
57.5°	182.8	186.9	190.9	187.9	184.9
60°	166.2	169.8	173.1	170.0	167.8
62.5°	149.4	152.5	155.4	152.4	150.3
65°	132.4	135.1	137.5	134.8	132.5
67.5°	115.5	117.8	120.0	117.2	114.8
70°	98.6	100.6	102.6	99.7	97.5
72.5°	81.9	83.7	85.5	82.6	80.7
75°	65.7	67.2	68.7	66.2	64.7
77.5°	50.2	51.5	52.5	50.9	49.5
80°	35.8	36.8	37.4	36.7	35.4
82.5°	23.0	23.7	24.0	24.0	23.1
85°	12.5	12.7	13.3	13.5	13.0
87.5°	4.8	5.2	5.3	5.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)