

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: P489050

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-1LO-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: P489050
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-30-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

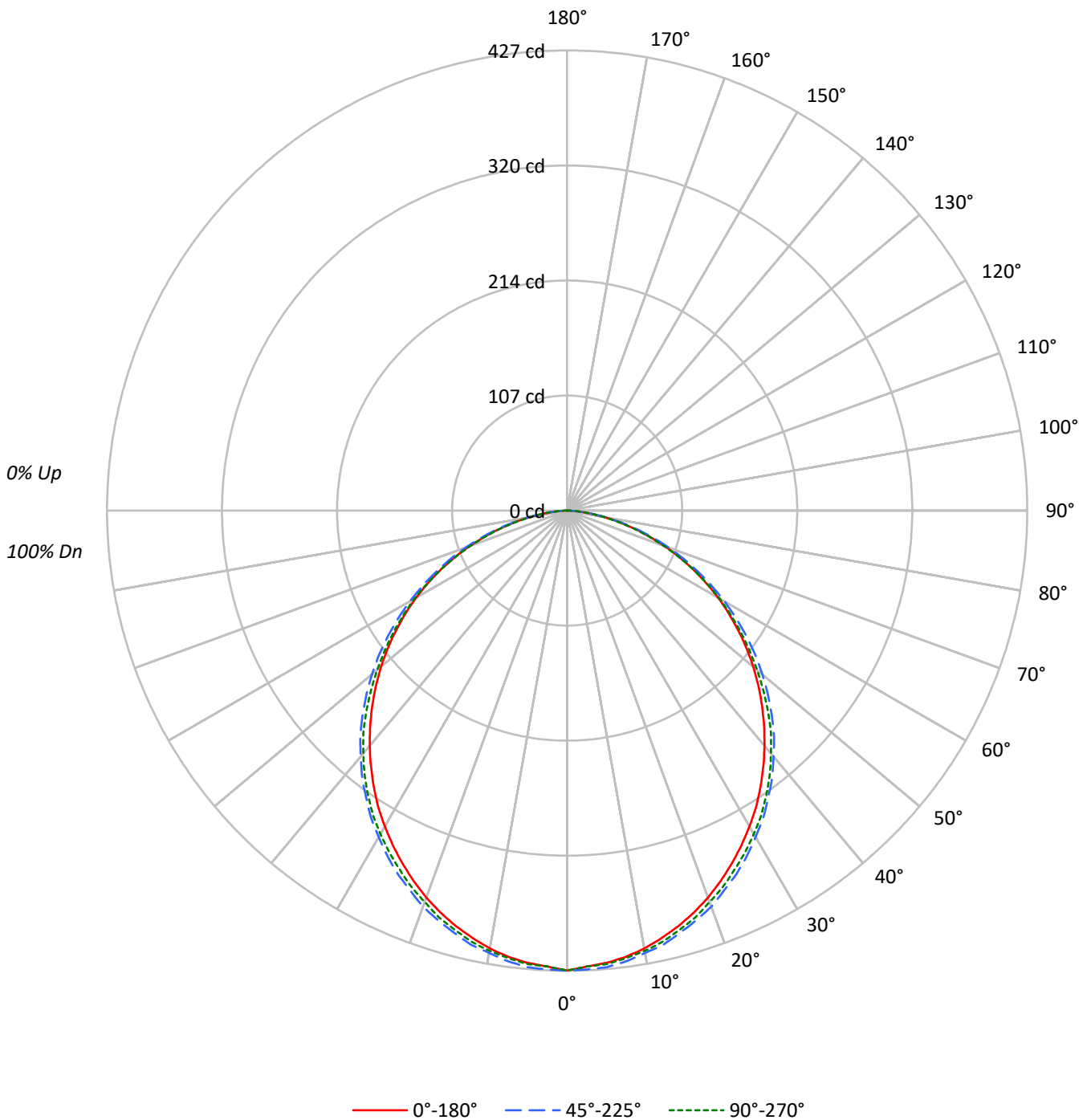
Lumens per Lamp: N/A
Luminaire Lumens: 1122.0 lumens
Efficiency: N/A
Efficacy: 95.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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°	1149	1149	1149
5°	1138	1149	1141
10°	1127	1139	1133
15°	1112	1130	1122
20°	1094	1120	1107
25°	1073	1104	1091
30°	1051	1087	1077
35°	1028	1068	1058
40°	1001	1047	1034
45°	973	1022	1003
50°	944	989	963
55°	909	952	923
60°	871	907	879
65°	821	852	821
70°	755	785	747
75°	664	695	655
80°	541	564	535
85°	377	401	392



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	3.6
10°-20°	113.9	10.2
20°-30°	169.9	15.1
30°-40°	201.3	17.9
40°-50°	203.7	18.2
50°-60°	177.9	15.9
60°-70°	130.0	11.6
70°-80°	69.2	6.2
80°-90°	16.0	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°	324.0	28.9
0°-40°	525.3	46.8
0°-60°	906.8	80.8
0°-90°	1122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	421	422	425	426	422	40
15°	399	402	406	408	403	113
25°	361	366	372	373	368	166
35°	313	318	325	328	322	196
45°	256	260	268	269	264	197
55°	194	198	203	200	197	173
65°	129	132	134	131	129	128
75°	64	65	67	64	63	68
85°	12	12	13	13	13	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	426.8	426.8	426.8	426.8	426.8
2.5°	423.4	424.8	426.2	426.9	423.4
5°	421.2	422.0	425.2	426.1	422.5
7.5°	417.6	418.8	421.8	422.3	418.8
10°	412.6	414.7	416.8	419.0	414.8
12.5°	406.2	409.1	412.6	413.0	409.8
15°	399.1	401.7	405.5	408.0	402.7
17.5°	391.1	393.6	398.5	399.0	395.8
20°	382.1	385.3	391.2	392.2	386.5
22.5°	372.0	376.3	381.2	382.2	377.9
25°	361.4	365.8	371.9	373.2	367.6
27.5°	350.2	354.5	361.3	362.3	357.5
30°	338.3	342.3	349.8	351.4	346.6
32.5°	326.2	330.2	338.5	339.9	335.2
35°	312.8	317.7	325.2	327.5	322.2
37.5°	299.1	303.9	312.4	314.5	308.8
40°	284.9	289.6	298.0	299.7	294.3
42.5°	270.4	275.1	284.1	284.4	279.9
45°	255.6	260.2	268.5	268.7	263.5
47.5°	240.6	245.2	252.6	251.8	246.8
50°	225.4	229.7	236.3	234.6	230.1
52.5°	209.6	213.9	220.1	217.3	213.1
55°	193.8	197.7	202.9	200.0	196.7
57.5°	177.9	181.8	185.8	182.8	179.9
60°	161.8	165.2	168.5	165.5	163.3
62.5°	145.4	148.4	151.2	148.3	146.2
65°	128.9	131.5	133.8	131.1	128.9
67.5°	112.4	114.6	116.8	114.0	111.7
70°	96.0	97.9	99.8	97.0	94.9
72.5°	79.7	81.4	83.1	80.4	78.6
75°	63.9	65.4	66.8	64.4	63.0
77.5°	48.9	50.1	51.1	49.5	48.2
80°	34.9	35.8	36.4	35.7	34.5
82.5°	22.4	23.1	23.4	23.3	22.5
85°	12.2	12.4	13.0	13.1	12.7
87.5°	4.7	5.0	5.2	5.6	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)