

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: P489120

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-3LO-27-120-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: P489120
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-27-120-EDD-90
Description: 2X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

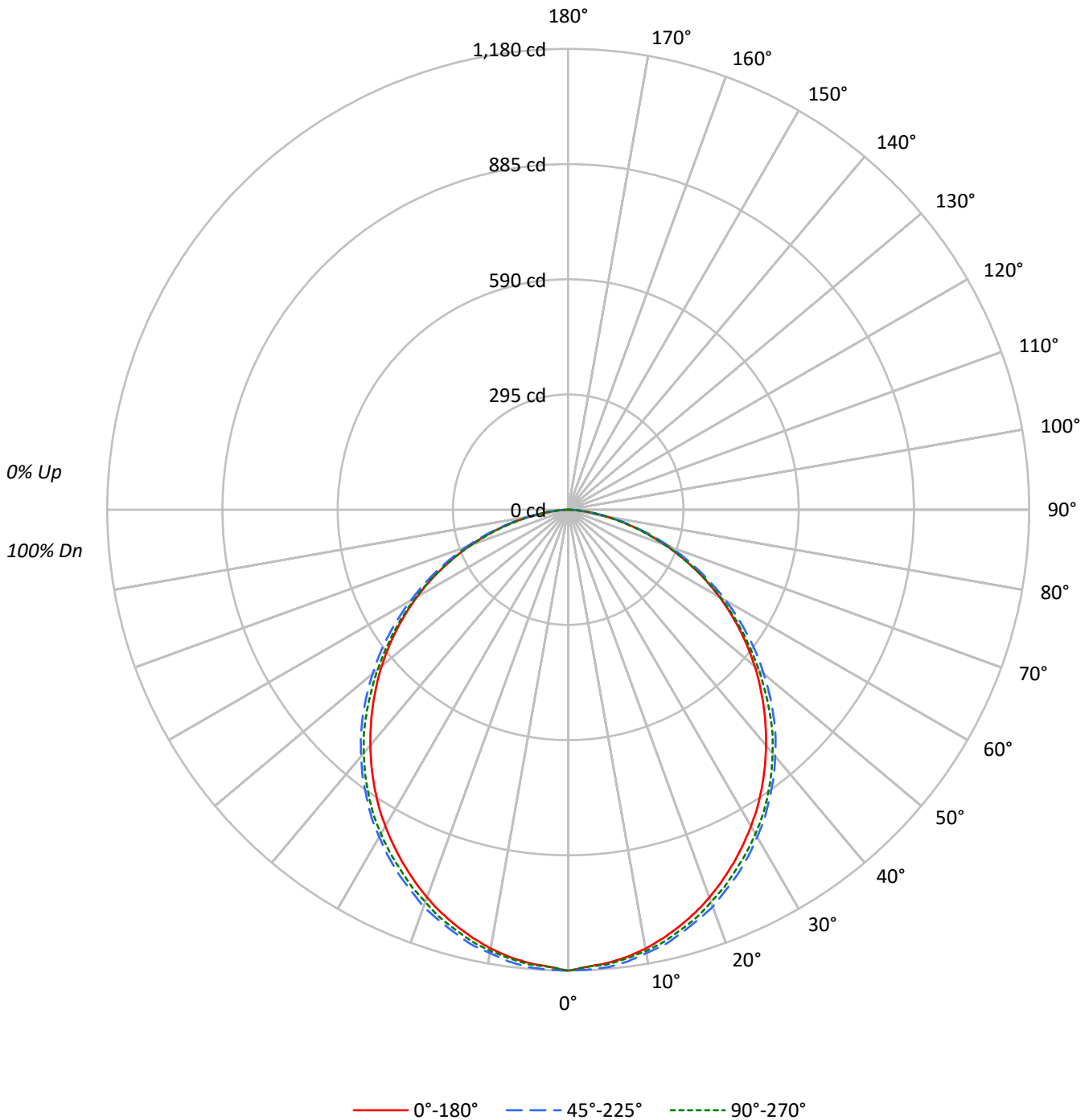
Lumens per Lamp: N/A
Luminaire Lumens: 3103.1 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3176	3176	3176
5°	3147	3176	3157
10°	3118	3149	3134
15°	3075	3124	3103
20°	3026	3098	3061
25°	2967	3053	3018
30°	2907	3006	2979
35°	2842	2955	2927
40°	2768	2896	2859
45°	2691	2826	2773
50°	2610	2736	2664
55°	2515	2632	2552
60°	2408	2508	2430
65°	2269	2356	2271
70°	2088	2172	2065
75°	1838	1921	1810
80°	1494	1559	1477
85°	1041	1108	1081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	3.6
10°-20°	315.0	10.2
20°-30°	469.8	15.1
30°-40°	556.7	17.9
40°-50°	563.3	18.2
50°-60°	492.0	15.9
60°-70°	359.5	11.6
70°-80°	191.3	6.2
80°-90°	44.2	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°	896.0	28.9
0°-40°	1452.7	46.8
0°-60°	2508.1	80.8
0°-90°	3103.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3103.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1165	1167	1176	1179	1169	110
15°	1104	1111	1122	1128	1114	311
25°	999	1012	1028	1032	1017	460
35°	865	879	899	906	891	541
45°	707	720	743	743	729	545
55°	536	547	561	553	544	479
65°	356	364	370	363	357	353
75°	177	181	185	178	174	188
85°	34	34	36	36	35	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.3	1180.3	1180.3	1180.3	1180.3
2.5°	1171.1	1174.9	1178.8	1180.6	1171.0
5°	1164.9	1167.2	1175.9	1178.6	1168.6
7.5°	1154.9	1158.2	1166.7	1167.9	1158.3
10°	1141.1	1147.0	1152.6	1158.8	1147.1
12.5°	1123.5	1131.5	1141.1	1142.2	1133.3
15°	1103.7	1111.1	1121.5	1128.3	1113.7
17.5°	1081.6	1088.7	1102.2	1103.4	1094.6
20°	1056.8	1065.7	1081.9	1084.8	1068.9
22.5°	1028.8	1040.7	1054.3	1057.0	1045.3
25°	999.4	1011.7	1028.4	1032.2	1016.6
27.5°	968.7	980.5	999.3	1002.0	988.8
30°	935.7	946.8	967.4	972.0	958.6
32.5°	902.3	913.3	936.2	940.0	927.0
35°	865.1	878.7	899.4	905.7	891.1
37.5°	827.2	840.4	864.0	869.7	853.9
40°	788.0	801.1	824.3	829.0	813.8
42.5°	747.9	761.0	785.8	786.5	774.0
45°	707.0	719.5	742.6	743.3	728.6
47.5°	665.4	678.1	698.7	696.4	682.6
50°	623.4	635.4	653.5	648.8	636.4
52.5°	579.8	591.5	608.6	601.0	589.3
55°	536.0	546.9	561.1	553.0	543.9
57.5°	491.9	502.8	513.8	505.5	497.7
60°	447.4	457.0	466.0	457.6	451.6
62.5°	402.1	410.4	418.1	410.1	404.5
65°	356.4	363.6	370.0	362.7	356.6
67.5°	310.9	317.0	322.9	315.3	309.0
70°	265.4	270.7	276.1	268.2	262.4
72.5°	220.5	225.2	230.0	222.3	217.3
75°	176.8	180.9	184.8	178.1	174.1
77.5°	135.1	138.6	141.3	137.0	133.2
80°	96.4	99.0	100.6	98.9	95.3
82.5°	62.0	63.8	64.7	64.6	62.2
85°	33.7	34.3	35.9	36.3	35.0
87.5°	13.0	13.9	14.3	15.4	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)