

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: P488449

Luminaire Tested: **CLM-12-2-INS-A19156-LD4-2STD-27-120-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: P488449
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-12-2-INS-A19156-LD4-2STD-27-120-EDD
Description: 1X2 CLM LED LUMINAIRE WITH A19156 LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

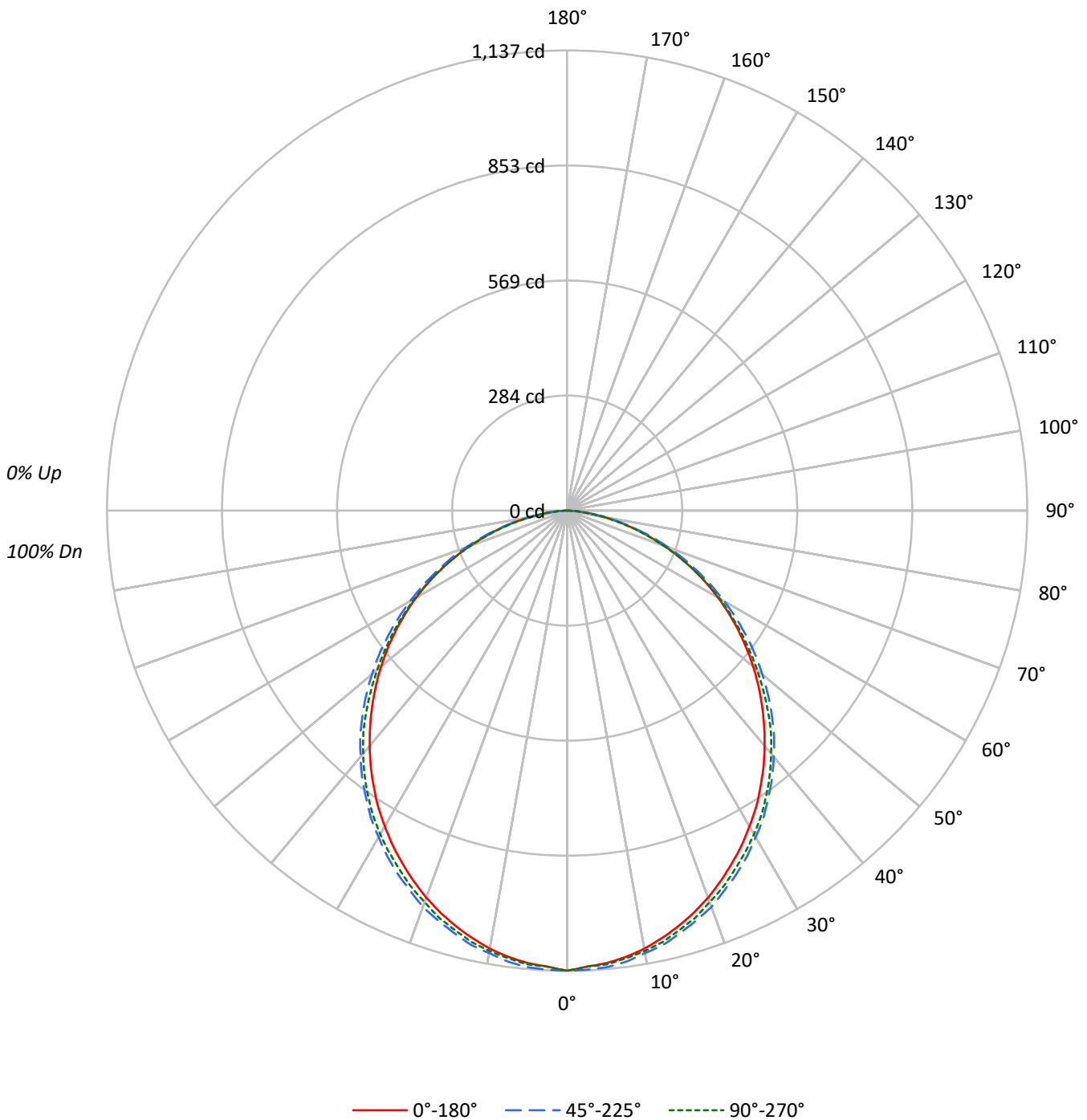
Lumens per Lamp: N/A
Luminaire Lumens: 2988.8 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.21 / 1.34
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

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

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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°	6118	6118	6118
5°	6062	6119	6081
10°	6006	6067	6038
15°	5923	6019	5976
20°	5830	5968	5896
25°	5716	5883	5815
30°	5601	5791	5738
35°	5475	5692	5639
40°	5332	5578	5507
45°	5182	5444	5342
50°	5027	5270	5133
55°	4845	5072	4916
60°	4638	4831	4681
65°	4372	4539	4374
70°	4022	4184	3978
75°	3541	3701	3487
80°	2879	3003	2845
85°	2007	2137	2087



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	3.6
10°-20°	303.4	10.2
20°-30°	452.5	15.1
30°-40°	536.2	17.9
40°-50°	542.6	18.2
50°-60°	473.9	15.9
60°-70°	346.3	11.6
70°-80°	184.2	6.2
80°-90°	42.6	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°	863.0	28.9
0°-40°	1399.2	46.8
0°-60°	2415.7	80.8
0°-90°	2988.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2988.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1137	1137	1137	1137	1137	
5°	1122	1124	1133	1135	1126	106
15°	1063	1070	1080	1087	1073	300
25°	963	974	991	994	979	443
35°	833	846	866	872	858	521
45°	681	693	715	716	702	525
55°	516	527	540	533	524	462
65°	343	350	356	349	344	340
75°	170	174	178	172	168	181
85°	32	33	35	35	34	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1136.8	1136.8	1136.8	1136.8	1136.8
2.5°	1127.9	1131.6	1135.4	1137.1	1127.8
5°	1122.0	1124.2	1132.6	1135.2	1125.6
7.5°	1112.3	1115.5	1123.7	1124.9	1115.6
10°	1099.0	1104.7	1110.2	1116.1	1104.9
12.5°	1082.1	1089.8	1099.0	1100.1	1091.6
15°	1063.0	1070.1	1080.2	1086.7	1072.6
17.5°	1041.7	1048.6	1061.6	1062.8	1054.3
20°	1017.9	1026.4	1042.1	1044.8	1029.5
22.5°	990.9	1002.4	1015.4	1018.0	1006.8
25°	962.6	974.4	990.6	994.2	979.2
27.5°	933.0	944.4	962.5	965.1	952.4
30°	901.2	911.9	931.8	936.2	923.3
32.5°	869.0	879.7	901.7	905.4	892.8
35°	833.3	846.3	866.3	872.3	858.3
37.5°	796.8	809.5	832.2	837.6	822.5
40°	759.0	771.5	793.9	798.4	783.9
42.5°	720.4	732.9	756.9	757.6	745.5
45°	680.9	693.0	715.3	715.9	701.8
47.5°	640.9	653.1	673.0	670.8	657.5
50°	600.4	612.0	629.4	624.9	613.0
52.5°	558.5	569.7	586.2	578.8	567.6
55°	516.3	526.7	540.5	532.6	523.9
57.5°	473.8	484.3	494.9	486.9	479.3
60°	430.9	440.1	448.8	440.7	434.9
62.5°	387.3	395.3	402.7	395.0	389.6
65°	343.3	350.2	356.4	349.3	343.5
67.5°	299.4	305.4	311.0	303.7	297.7
70°	255.6	260.7	265.9	258.3	252.8
72.5°	212.4	216.9	221.5	214.1	209.3
75°	170.3	174.2	178.0	171.5	167.7
77.5°	130.2	133.5	136.1	131.9	128.3
80°	92.9	95.3	96.9	95.2	91.8
82.5°	59.7	61.5	62.3	62.2	59.9
85°	32.5	33.0	34.6	34.9	33.8
87.5°	12.6	13.4	13.7	14.8	13.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)