Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P489172

Luminaire Tested: **CLM-24-2-INS-A19156-LD4-4STD-35-120-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.

Report Generated By E9911574 / USPTCWHP6081592

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Test Information

Test Method:	LM-79-08
Report Number:	P489172
	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-LD4-4STD-35-120-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:	6472.1 lumens
Efficiency:	N/A
Efficacy:	97.2 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):	66.6
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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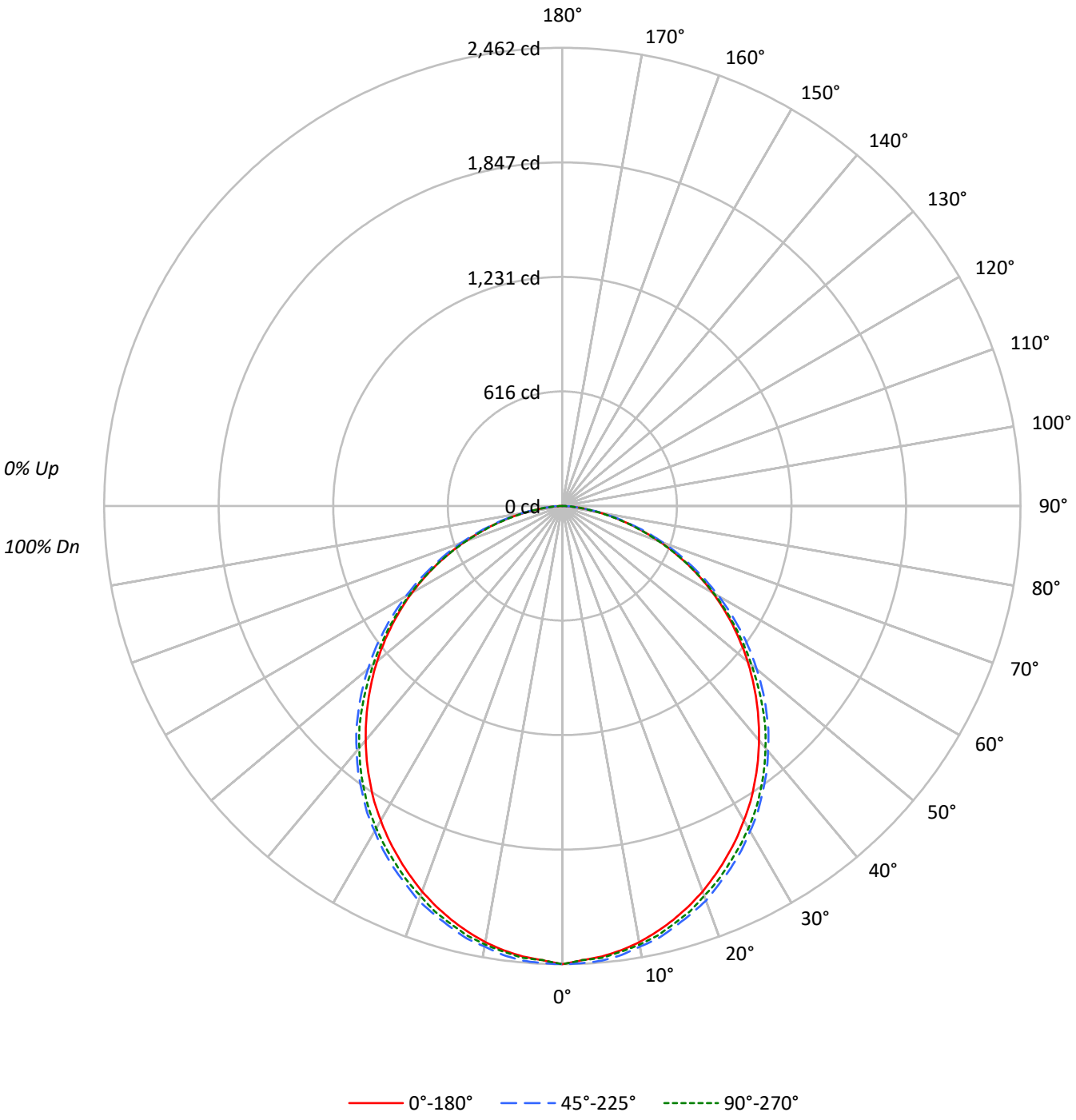
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	6625	6625	6625
5°	6563	6625	6584
10°	6503	6569	6537
15°	6413	6517	6471
20°	6312	6462	6384
25°	6189	6369	6296
30°	6064	6270	6212
35°	5928	6162	6105
40°	5774	6039	5963
45°	5611	5895	5783
50°	5443	5706	5557
55°	5245	5491	5322
60°	5022	5230	5069
65°	4733	4914	4736
70°	4355	4530	4306
75°	3834	4008	3776
80°	3116	3251	3081
85°	2171	2313	2257

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.8	3.6
10°-20°	657.0	10.2
20°-30°	979.9	15.1
30°-40°	1161.2	17.9
40°-50°	1174.9	18.2
50°-60°	1026.1	15.9
60°-70°	749.9	11.6
70°-80°	399.0	6.2
80°-90°	92.2	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°	1868.8	28.9
0°-40°	3029.9	46.8
0°-60°	5231.0	80.8
0°-90°	6472.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6472.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2462	2462	2462	2462	2462	
5°	2430	2434	2452	2458	2437	230
15°	2302	2317	2339	2353	2323	649
25°	2084	2110	2145	2153	2120	960
35°	1804	1833	1876	1889	1858	1128
45°	1474	1501	1549	1550	1520	1138
55°	1118	1141	1170	1153	1134	999
65°	743	758	772	756	744	736
75°	369	377	386	371	363	392
85°	70	72	75	76	73	89
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2461.8	2461.8	2461.8	*2461.8*	2461.8
2.5°	*2442.5*	*2450.5*	*2458.7*	*2462.3*	*2442.3*
5°	2429.7	2434.3	2452.5	*2458.2*	2437.4
7.5°	2408.7	2415.6	2433.3	*2435.9*	2415.8
10°	2379.9	2392.2	2404.0	*2416.9*	2392.5
12.5°	2343.3	2359.9	2379.9	*2382.2*	2363.8
15°	2302.0	2317.4	2339.2	*2353.3*	2322.7
17.5°	2255.8	2270.7	2298.9	*2301.5*	2283.0
20°	2204.2	2222.7	2256.6	*2262.5*	2229.4
22.5°	2145.8	2170.6	2198.9	*2204.5*	2180.1
25°	2084.5	2110.1	2145.0	*2152.9*	2120.4
27.5°	2020.3	2045.0	2084.2	*2089.9*	2062.4
30°	1951.6	1974.7	2017.8	*2027.3*	1999.3
32.5°	1881.8	1904.9	1952.6	*1960.6*	1933.4
35°	1804.4	1832.6	1875.9	*1889.0*	1858.5
37.5°	1725.4	1752.8	1802.1	*1813.9*	1781.0
40°	1643.6	1670.8	1719.2	*1729.0*	1697.4
42.5°	1560.0	1587.1	1638.9	*1640.5*	1614.3
45°	1474.5	1500.7	1548.9	*1550.2*	1519.7
47.5°	1387.8	1414.3	1457.4	*1452.5*	1423.8
50°	1300.1	1325.3	1363.0	*1353.2*	1327.3
52.5°	1209.3	1233.7	1269.4	*1253.4*	1229.1
55°	1118.0	1140.6	1170.3	*1153.4*	1134.4
57.5°	1025.9	1048.8	1071.6	*1054.4*	1038.0
60°	933.1	953.1	971.8	*954.4*	941.8
62.5°	838.7	855.9	872.1	*855.4*	843.6
65°	743.3	758.4	771.8	*756.4*	743.8
67.5°	648.4	661.2	673.5	*657.6*	644.6
70°	553.5	564.5	575.8	*559.4*	547.3
72.5°	459.9	469.6	479.6	*463.7*	453.2
75°	368.8	377.3	385.5	*371.4*	363.2
77.5°	281.9	289.1	294.7	*285.7*	277.8
80°	201.1	206.5	209.8	*206.2*	198.8
82.5°	129.3	133.1	134.9	*134.7*	129.8
85°	70.3	71.6	74.9	*75.7*	73.1
87.5°	27.2	29.0	29.8	*32.1*	29.5
90°	0.0	0.0	0.0	*0.0*	0.0

(END OF REPORT)