

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: METALUX

Report Number: P271993

Luminaire Tested: **22CZ2-39HE-UNV-L930-CD1-U**

Issue Date: 3/3/2020

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: P271993
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-UNV-L930-CD1-U
Description: 2'X2' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3242.5 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

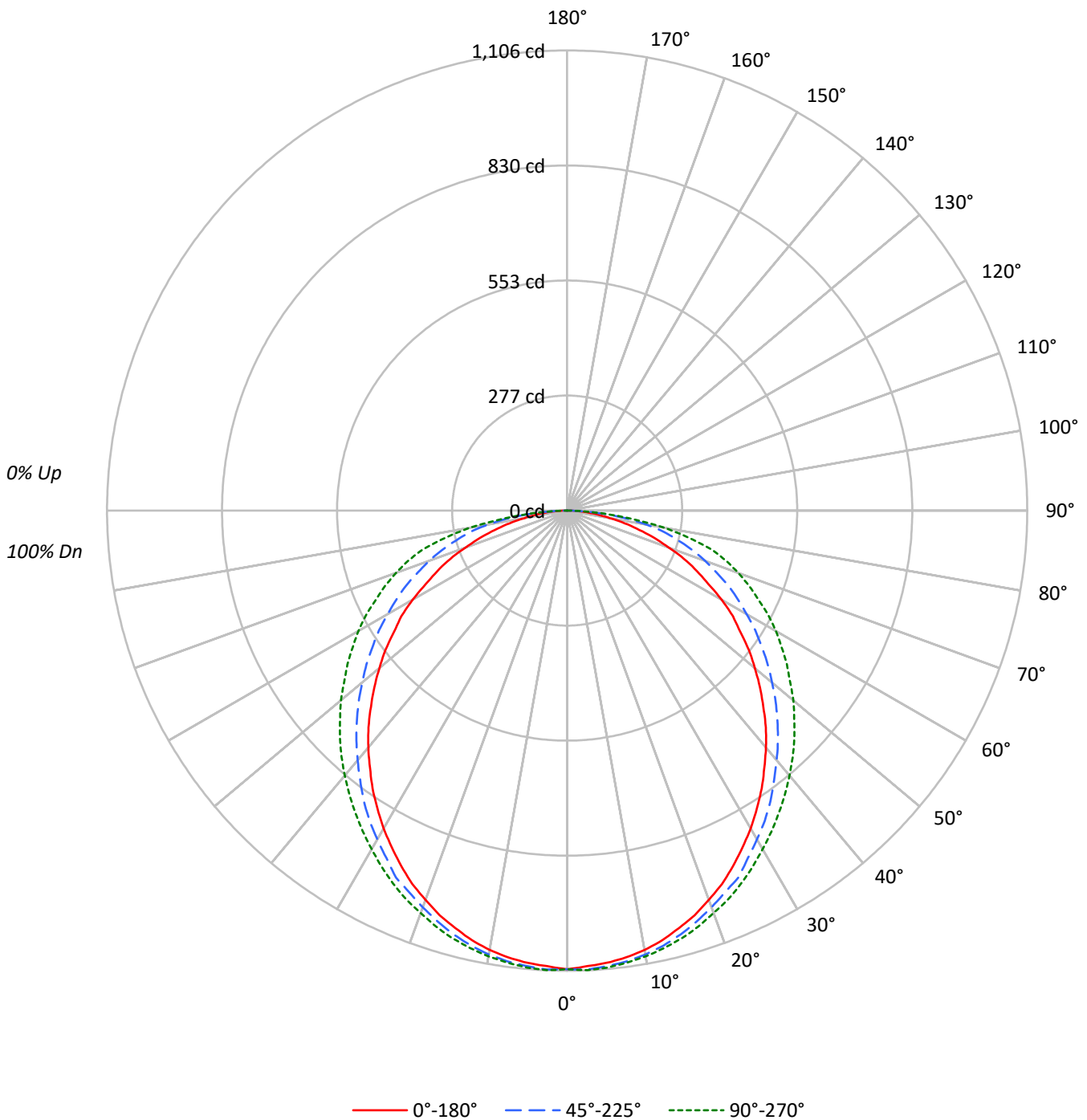
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61		70	65	60		68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52		63	56	51		60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44		56	49	44		54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34		46	39	34		45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31		42	35	30		41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28		39	32	27		38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25		36	30	25		35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2967	2967	2967
5°	2948	2969	2978
10°	2930	2960	2973
15°	2894	2938	2965
20°	2851	2906	2947
25°	2800	2890	2937
30°	2742	2836	2920
35°	2678	2799	2914
40°	2612	2752	2920
45°	2538	2720	2939
50°	2465	2692	2972
55°	2381	2680	3024
60°	2310	2679	3117
65°	2194	2723	3231
70°	2046	2774	3440
75°	1875	2870	3716
80°	1632	2992	3659
85°	1430	2661	2905



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.2
10°-20°	297.0	9.2
20°-30°	445.8	13.7
30°-40°	532.7	16.4
40°-50°	554.0	17.1
50°-60°	513.4	15.8
60°-70°	421.1	13.0
70°-80°	284.7	8.8
80°-90°	89.5	2.8
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°	847.1	26.1
0°-40°	1379.8	42.6
0°-60°	2447.2	75.5
0°-90°	3242.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3242.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1091	1093	1099	1101	1102	104
15°	1039	1044	1055	1061	1064	293
25°	943	951	973	984	989	434
35°	815	826	852	878	887	510
45°	667	680	715	756	772	515
55°	507	523	571	622	645	456
65°	345	364	428	483	507	341
75°	180	211	276	332	357	191
85°	46	64	86	96	94	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1096.1	1099.3	1104.1	1105.7	1105.7
5°	1091.3	1092.9	1099.3	1100.9	1102.5
7.5°	1083.4	1086.6	1092.9	1094.5	1096.1
10°	1072.2	1075.4	1083.4	1086.6	1088.1
12.5°	1057.8	1061.0	1070.6	1075.4	1077.0
15°	1038.7	1043.5	1054.6	1061.0	1064.2
17.5°	1019.5	1024.3	1035.5	1045.1	1048.3
20°	995.6	1006.8	1014.8	1027.5	1029.1
22.5°	971.7	978.1	992.4	1005.2	1011.6
25°	943.0	950.9	973.3	984.4	989.2
27.5°	912.6	923.8	941.4	958.9	965.3
30°	882.3	890.3	912.6	933.4	939.8
32.5°	848.8	860.0	883.9	904.7	914.2
35°	815.3	826.5	852.0	877.5	887.1
37.5°	778.6	791.4	816.9	847.2	860.0
40°	743.5	753.1	783.4	820.1	831.3
42.5°	706.8	718.0	749.9	789.8	802.6
45°	666.9	679.7	714.8	756.3	772.2
47.5°	628.6	641.4	679.7	721.2	740.3
50°	588.7	604.7	643.0	690.9	710.0
52.5°	550.5	564.8	607.9	657.4	674.9
55°	507.4	523.3	571.2	622.3	644.6
57.5°	472.3	483.4	536.1	588.7	611.1
60°	429.2	443.6	497.8	553.6	579.2
62.5°	382.9	406.9	462.7	520.1	545.7
65°	344.6	363.8	427.6	483.4	507.4
67.5°	304.7	325.5	387.7	446.7	473.9
70°	260.1	287.2	352.6	411.6	437.2
72.5°	220.2	248.9	315.9	373.4	400.5
75°	180.3	210.6	276.0	331.9	357.4
77.5°	142.0	175.5	239.3	282.4	298.4
80°	105.3	137.2	193.1	223.4	236.1
82.5°	73.4	100.5	142.0	158.0	161.1
85°	46.3	63.8	86.2	95.7	94.1
87.5°	20.7	25.5	31.9	35.1	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)