

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: P277470

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-39HE-S-UNV-L92765-W2A1-U-2700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3033.0 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

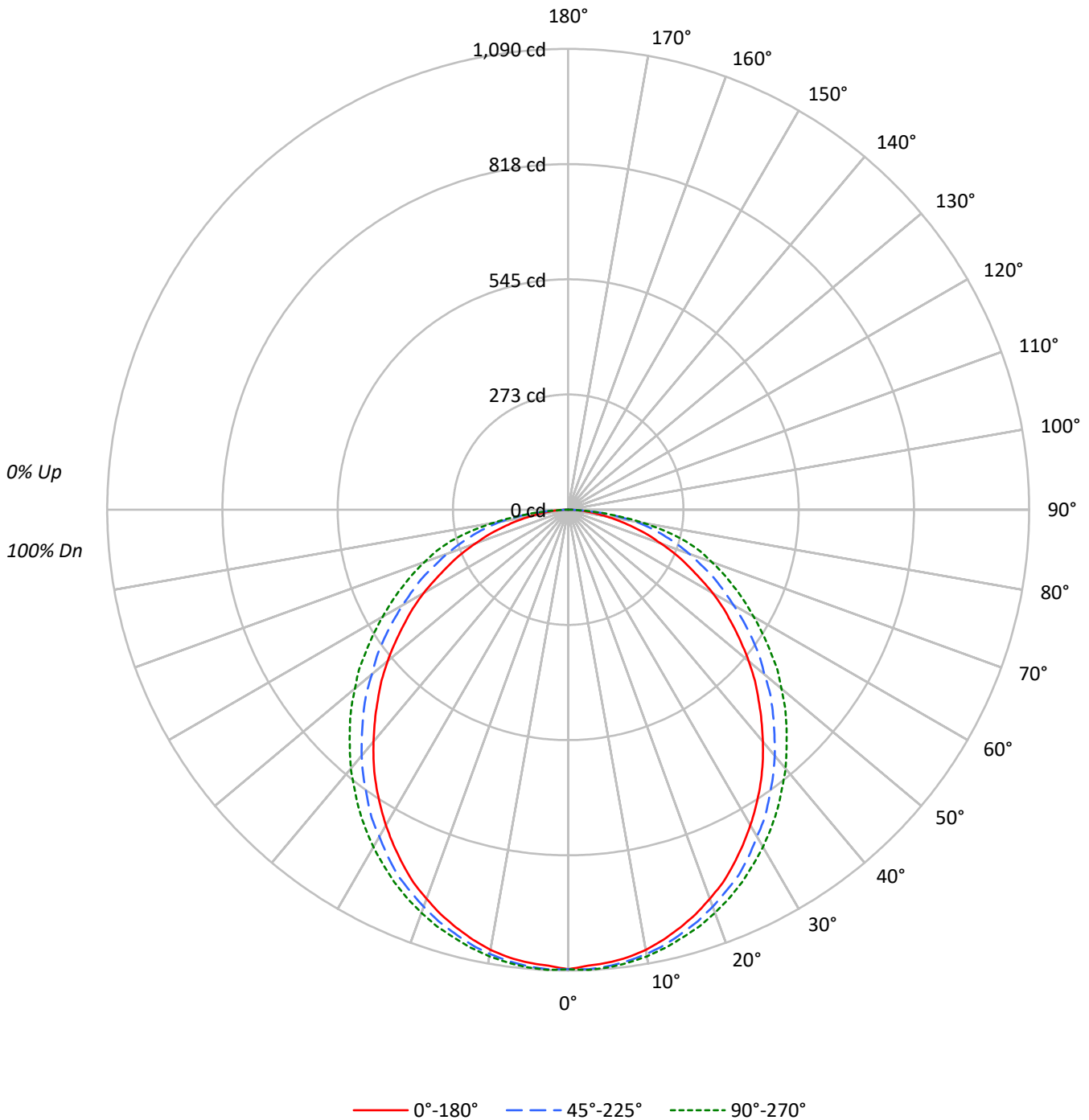
Input Watts (W): 30.039
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2925	2925	2925
5°	2905	2928	2936
10°	2889	2916	2931
15°	2850	2890	2917
20°	2804	2861	2905
25°	2748	2832	2887
30°	2678	2774	2862
35°	2603	2724	2836
40°	2516	2669	2809
45°	2423	2606	2779
50°	2334	2536	2755
55°	2224	2490	2735
60°	2125	2429	2726
65°	1982	2415	2757
70°	1826	2394	2840
75°	1648	2428	2987
80°	1426	2500	2806
85°	1179	2096	2096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	3.4
10°-20°	292.5	9.6
20°-30°	437.6	14.4
30°-40°	518.3	17.1
40°-50°	528.2	17.4
50°-60°	473.4	15.6
60°-70°	370.6	12.2
70°-80°	239.0	7.9
80°-90°	70.6	2.3
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°	832.9	27.5
0°-40°	1351.2	44.5
0°-60°	2352.8	77.6
0°-90°	3033.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3033.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1087	1087	1087	1087	1087	
5°	1076	1078	1084	1085	1087	102
15°	1023	1029	1037	1046	1047	288
25°	926	934	954	966	972	426
35°	792	802	829	855	863	495
45°	637	651	685	720	730	492
55°	474	490	531	568	583	425
65°	311	330	379	416	433	309
75°	158	183	234	273	287	170
85°	38	52	68	68	68	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1086.8	1086.8	1086.8	1086.8	1086.8
2.5°	1079.7	1082.6	1088.2	1089.6	1089.6
5°	1075.5	1078.3	1084.0	1085.4	1086.8
7.5°	1068.4	1069.8	1076.9	1079.7	1081.2
10°	1057.1	1059.9	1067.0	1071.3	1072.7
12.5°	1041.5	1045.8	1054.3	1059.9	1061.3
15°	1023.1	1028.8	1037.3	1045.8	1047.2
17.5°	1003.3	1009.0	1020.3	1030.2	1033.0
20°	979.3	986.3	999.1	1010.4	1014.6
22.5°	955.2	960.9	976.4	990.6	994.8
25°	925.5	934.0	953.8	966.5	972.2
27.5°	894.4	904.3	924.1	941.1	946.7
30°	861.8	871.7	892.9	914.2	921.2
32.5°	827.8	839.2	864.6	885.9	892.9
35°	792.5	802.4	829.3	854.7	863.2
37.5°	755.7	764.2	795.3	822.2	830.7
40°	716.1	727.4	759.9	791.1	799.5
42.5°	676.4	689.2	721.7	755.7	764.2
45°	636.8	651.0	684.9	720.3	730.2
47.5°	598.6	609.9	648.1	682.1	696.2
50°	557.6	568.9	605.7	643.9	658.0
52.5°	515.1	530.7	570.3	607.1	624.1
55°	474.1	489.6	530.7	567.5	583.0
57.5°	435.9	448.6	491.0	529.3	544.8
60°	394.8	406.1	451.4	492.5	506.6
62.5°	351.0	367.9	414.6	452.8	469.8
65°	311.3	329.7	379.3	416.0	433.0
67.5°	274.5	291.5	339.6	379.3	397.7
70°	232.1	254.7	304.3	343.9	360.9
72.5°	198.1	217.9	268.9	308.5	326.9
75°	158.5	182.6	233.5	273.1	287.3
77.5°	125.9	150.0	198.1	229.3	236.3
80°	92.0	116.0	161.3	176.9	181.1
82.5°	62.3	84.9	116.0	120.3	121.7
85°	38.2	52.4	67.9	67.9	67.9
87.5°	18.4	21.2	24.1	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)