

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: P277371

Luminaire Tested: **22CZ2-39HE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277371
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-L93050-W2A1-U-3500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3290.0 lumens
Efficiency: N/A
Efficacy: 107.2 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

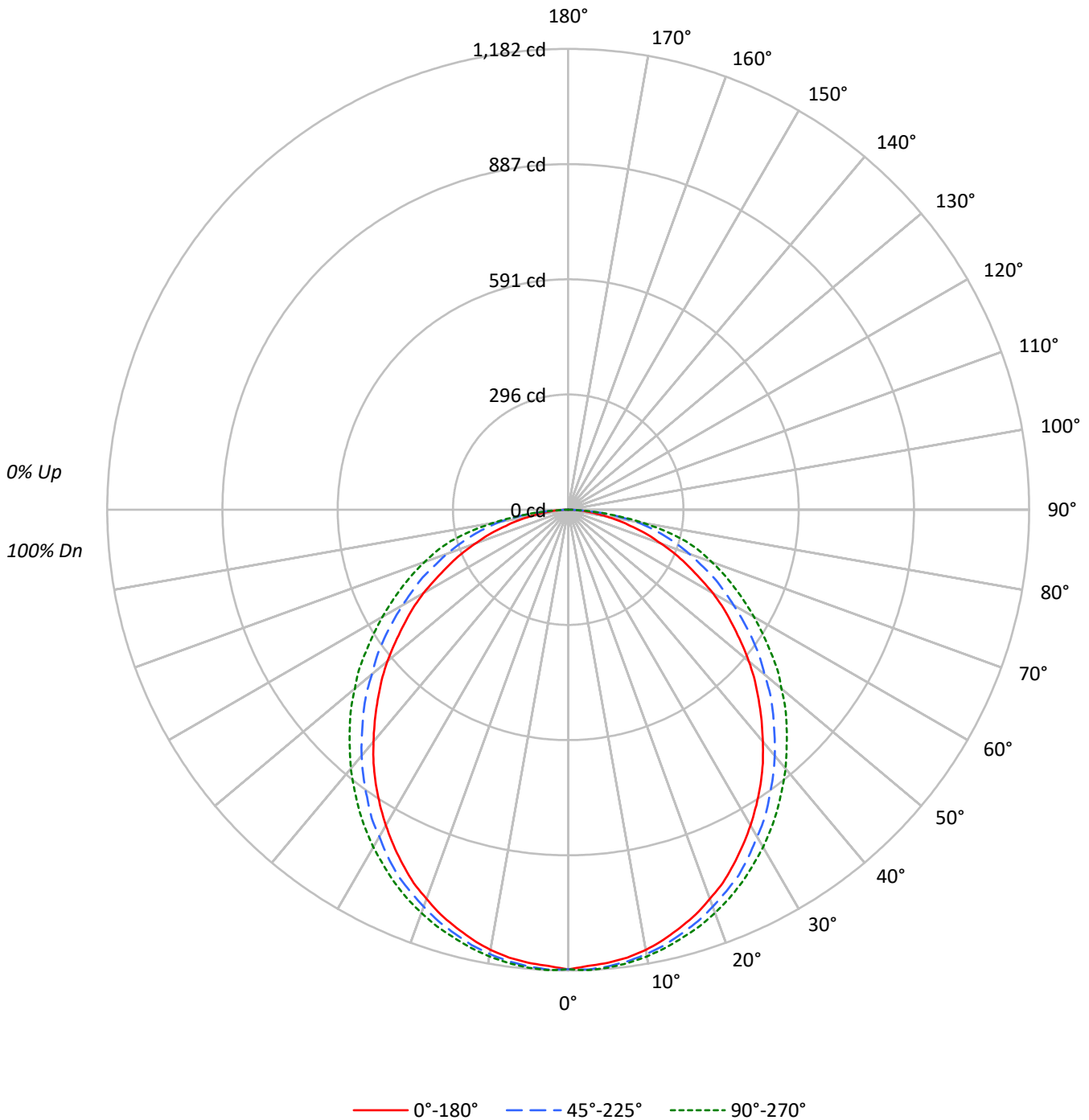
Input Watts (W): 30.704508
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3172	3172	3172
5°	3151	3176	3185
10°	3133	3163	3180
15°	3092	3135	3165
20°	3042	3103	3152
25°	2981	3072	3131
30°	2905	3010	3105
35°	2824	2955	3076
40°	2728	2896	3047
45°	2629	2828	3014
50°	2532	2750	2988
55°	2412	2700	2967
60°	2305	2636	2957
65°	2150	2620	2991
70°	1980	2596	3079
75°	1787	2634	3240
80°	1547	2712	3045
85°	1278	2276	2276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	3.4
10°-20°	317.3	9.6
20°-30°	474.7	14.4
30°-40°	562.2	17.1
40°-50°	572.9	17.4
50°-60°	513.5	15.6
60°-70°	402.0	12.2
70°-80°	259.3	7.9
80°-90°	76.6	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°	903.5	27.5
0°-40°	1465.7	44.5
0°-60°	2552.1	77.6
0°-90°	3290.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3290.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1167	1170	1176	1177	1179	111
15°	1110	1116	1125	1134	1136	313
25°	1004	1013	1035	1048	1055	462
35°	860	870	900	927	936	537
45°	691	706	743	781	792	533
55°	514	531	576	616	632	461
65°	338	358	411	451	470	335
75°	172	198	253	296	312	184
85°	41	57	74	74	74	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1178.9	1178.9	1178.9	1178.9	1178.9
2.5°	1171.2	1174.3	1180.4	1182.0	1182.0
5°	1166.6	1169.7	1175.8	1177.4	1178.9
7.5°	1159.0	1160.5	1168.2	1171.2	1172.8
10°	1146.7	1149.7	1157.4	1162.0	1163.6
12.5°	1129.8	1134.4	1143.6	1149.7	1151.3
15°	1109.8	1116.0	1125.2	1134.4	1135.9
17.5°	1088.3	1094.5	1106.8	1117.5	1120.6
20°	1062.2	1069.9	1083.7	1096.0	1100.6
22.5°	1036.2	1042.3	1059.2	1074.5	1079.1
25°	1003.9	1013.1	1034.6	1048.4	1054.6
27.5°	970.1	980.9	1002.4	1020.8	1026.9
30°	934.8	945.6	968.6	991.6	999.3
32.5°	898.0	910.3	937.9	960.9	968.6
35°	859.6	870.4	899.5	927.2	936.4
37.5°	819.7	828.9	862.7	891.9	901.1
40°	776.7	789.0	824.3	858.1	867.3
42.5°	733.7	747.6	782.9	819.7	828.9
45°	690.8	706.1	743.0	781.3	792.1
47.5°	649.3	661.6	703.0	739.9	755.2
50°	604.8	617.1	657.0	698.4	713.8
52.5°	558.8	575.6	618.6	658.5	677.0
55°	514.2	531.1	575.6	615.6	632.4
57.5°	472.8	486.6	532.7	574.1	591.0
60°	428.3	440.6	489.7	534.2	549.5
62.5°	380.7	399.1	449.8	491.2	509.6
65°	337.7	357.7	411.4	451.3	469.7
67.5°	297.8	316.2	368.4	411.4	431.3
70°	251.7	276.3	330.0	373.0	391.4
72.5°	214.9	236.4	291.7	334.6	354.6
75°	171.9	198.0	253.3	296.3	311.6
77.5°	136.6	162.7	214.9	248.7	256.4
80°	99.8	125.9	175.0	191.9	196.5
82.5°	67.5	92.1	125.9	130.5	132.0
85°	41.4	56.8	73.7	73.7	73.7
87.5°	20.0	23.0	26.1	24.6	24.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)