

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: P277175

Luminaire Tested: **22CZ2-39HE-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277175  
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-L83050-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3890.0 lumens  
Efficiency: N/A  
Efficacy: 123.0 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

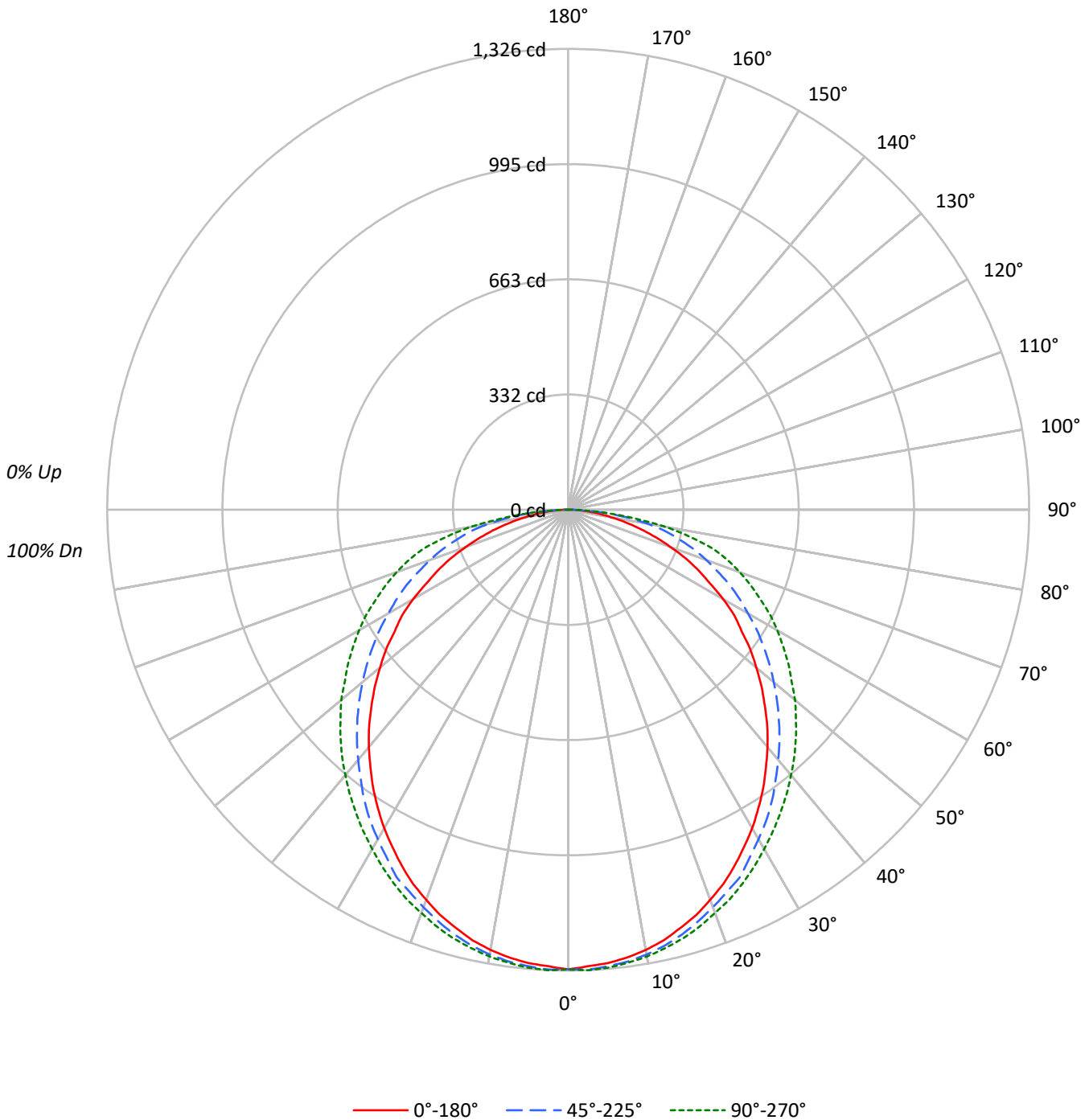
Input Watts (W): 31.62  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3559	3559	3559
5°	3537	3562	3573
10°	3515	3551	3567
15°	3472	3525	3557
20°	3420	3486	3535
25°	3359	3467	3524
30°	3289	3402	3503
35°	3213	3358	3496
40°	3133	3301	3503
45°	3045	3263	3526
50°	2957	3229	3566
55°	2856	3215	3628
60°	2771	3214	3739
65°	2633	3266	3876
70°	2455	3328	4127
75°	2249	3442	4458
80°	1957	3589	4390
85°	1714	3193	3486



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.1	3.2
10°-20°	356.3	9.2
20°-30°	534.9	13.7
30°-40°	639.1	16.4
40°-50°	664.6	17.1
50°-60°	616.0	15.8
60°-70°	505.2	13.0
70°-80°	341.5	8.8
80°-90°	107.3	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°	1016.2	26.1
0°-40°	1655.3	42.6
0°-60°	2935.9	75.5
0°-90°	3890.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3890.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1323	1323	1323	1323	1323	
5°	1309	1311	1319	1321	1323	124
15°	1246	1252	1265	1273	1277	351
25°	1131	1141	1168	1181	1187	521
35°	978	992	1022	1053	1064	611
45°	800	815	858	907	926	618
55°	609	628	685	746	773	547
65°	414	436	513	580	609	409
75°	216	253	331	398	429	229
85°	56	77	103	115	113	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1322.7	1322.7	1322.7	1322.7	1322.7
2.5°	1315.0	1318.8	1324.6	1326.5	1326.5
5°	1309.3	1311.2	1318.8	1320.8	1322.7
7.5°	1299.7	1303.5	1311.2	1313.1	1315.0
10°	1286.3	1290.1	1299.7	1303.5	1305.4
12.5°	1269.1	1272.9	1284.4	1290.1	1292.0
15°	1246.1	1251.8	1265.2	1272.9	1276.7
17.5°	1223.1	1228.9	1242.3	1253.8	1257.6
20°	1194.4	1207.8	1217.4	1232.7	1234.6
22.5°	1165.7	1173.4	1190.6	1205.9	1213.6
25°	1131.3	1140.8	1167.6	1181.0	1186.8
27.5°	1094.9	1108.3	1129.3	1150.4	1158.1
30°	1058.5	1068.1	1094.9	1119.8	1127.4
32.5°	1018.3	1031.7	1060.4	1085.3	1096.8
35°	978.1	991.5	1022.2	1052.8	1064.3
37.5°	934.1	949.4	980.0	1016.4	1031.7
40°	892.0	903.5	939.8	983.9	997.3
42.5°	848.0	861.4	899.6	947.5	962.8
45°	800.1	815.4	857.5	907.3	926.4
47.5°	754.2	769.5	815.4	865.2	888.2
50°	706.3	725.5	771.4	828.8	851.8
52.5°	660.4	677.6	729.3	788.6	809.7
55°	608.7	627.8	685.3	746.5	773.3
57.5°	566.6	580.0	643.2	706.3	733.1
60°	514.9	532.1	597.2	664.2	694.8
62.5°	459.4	488.1	555.1	624.0	654.6
65°	413.5	436.4	513.0	580.0	608.7
67.5°	365.6	390.5	465.1	536.0	568.5
70°	312.0	344.5	423.0	493.8	524.5
72.5°	264.2	298.6	379.0	447.9	480.4
75°	216.3	252.7	331.1	398.1	428.8
77.5°	170.4	210.6	287.1	338.8	357.9
80°	126.3	164.6	231.6	268.0	283.3
82.5°	88.1	120.6	170.4	189.5	193.3
85°	55.5	76.6	103.4	114.8	112.9
87.5°	24.9	30.6	38.3	42.1	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)