

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: P277205

Luminaire Tested: **22CZ2-39HE-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277205  
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-L93050-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3428.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 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

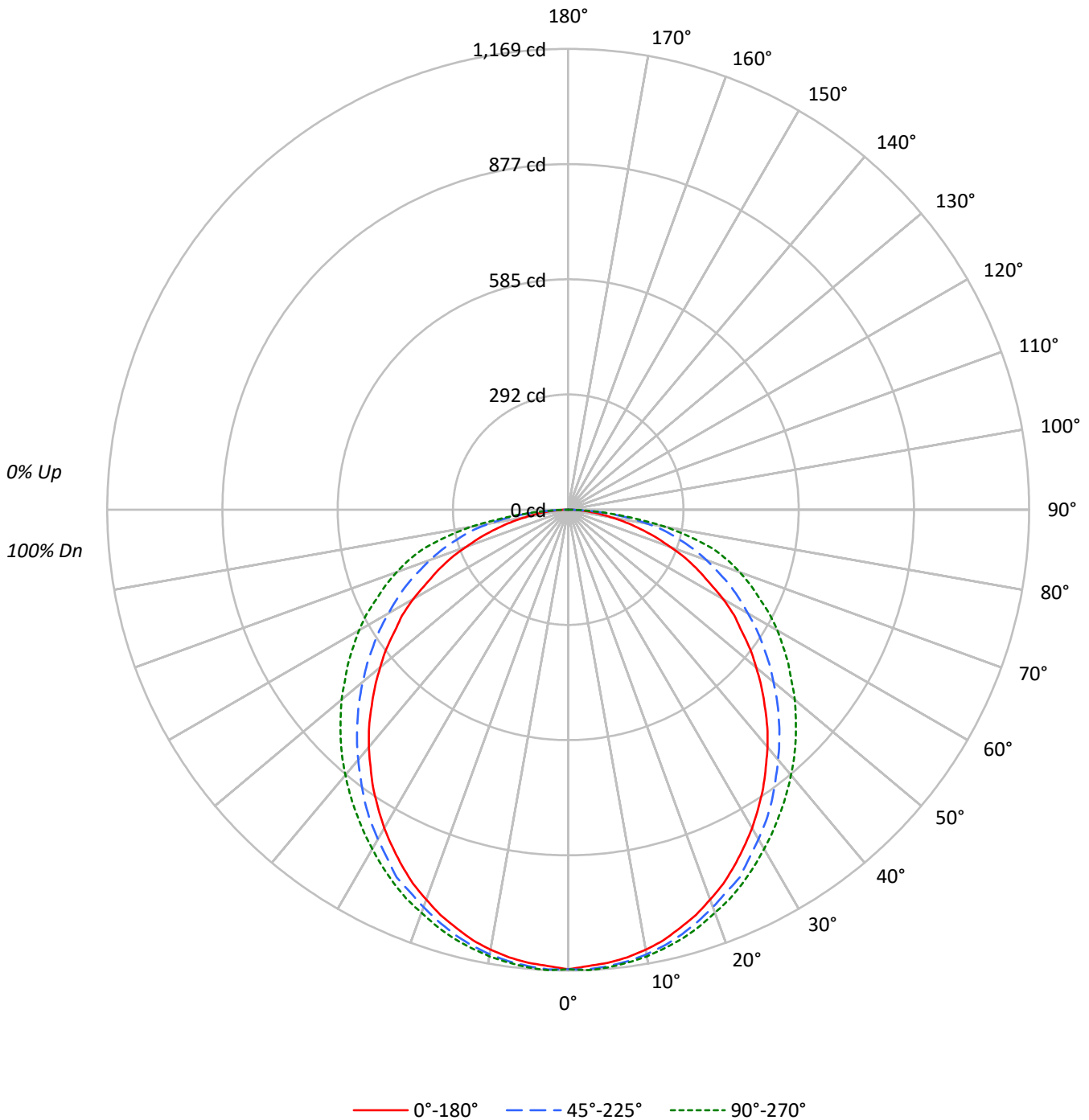
Input Watts (W): 31.397544  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3137	3137	3137
5°	3117	3139	3149
10°	3097	3130	3143
15°	3059	3106	3134
20°	3014	3072	3116
25°	2960	3055	3105
30°	2898	2998	3087
35°	2832	2959	3081
40°	2761	2909	3087
45°	2683	2876	3107
50°	2606	2846	3142
55°	2517	2833	3197
60°	2442	2833	3295
65°	2320	2879	3415
70°	2163	2933	3637
75°	1982	3034	3928
80°	1725	3163	3868
85°	1510	2813	3072



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.2	3.2
10°-20°	314.0	9.2
20°-30°	471.3	13.7
30°-40°	563.2	16.4
40°-50°	585.7	17.1
50°-60°	542.8	15.8
60°-70°	445.2	13.0
70°-80°	301.0	8.8
80°-90°	94.6	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°	895.5	26.1
0°-40°	1458.8	42.6
0°-60°	2587.2	75.5
0°-90°	3428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3428.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1166	1166	1166	1166	1166	
5°	1154	1156	1162	1164	1166	110
15°	1098	1103	1115	1122	1125	310
25°	997	1005	1029	1041	1046	459
35°	862	874	901	928	938	539
45°	705	719	756	800	816	544
55°	536	553	604	658	682	482
65°	364	385	452	511	536	360
75°	191	223	292	351	378	202
85°	49	68	91	101	100	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1165.6	1165.6	1165.6	1165.6	1165.6
2.5°	1158.8	1162.2	1167.3	1169.0	1169.0
5°	1153.8	1155.5	1162.2	1163.9	1165.6
7.5°	1145.3	1148.7	1155.5	1157.1	1158.8
10°	1133.5	1136.9	1145.3	1148.7	1150.4
12.5°	1118.4	1121.7	1131.8	1136.9	1138.6
15°	1098.1	1103.2	1115.0	1121.7	1125.1
17.5°	1077.9	1082.9	1094.7	1104.9	1108.2
20°	1052.6	1064.4	1072.8	1086.3	1088.0
22.5°	1027.3	1034.0	1049.2	1062.7	1069.4
25°	996.9	1005.3	1029.0	1040.8	1045.8
27.5°	964.9	976.7	995.2	1013.8	1020.5
30°	932.8	941.2	964.9	986.8	993.5
32.5°	897.4	909.2	934.5	956.4	966.5
35°	862.0	873.8	900.8	927.7	937.9
37.5°	823.2	836.7	863.6	895.7	909.2
40°	786.1	796.2	828.2	867.0	878.8
42.5°	747.3	759.1	792.8	835.0	848.5
45°	705.1	718.6	755.7	799.5	816.4
47.5°	664.6	678.1	718.6	762.4	782.7
50°	622.4	639.3	679.8	730.4	750.6
52.5°	581.9	597.1	642.7	695.0	713.5
55°	536.4	553.3	603.9	657.9	681.5
57.5°	499.3	511.1	566.8	622.4	646.0
60°	453.8	468.9	526.3	585.3	612.3
62.5°	404.8	430.1	489.2	549.9	576.9
65°	364.4	384.6	452.1	511.1	536.4
67.5°	322.2	344.1	409.9	472.3	501.0
70°	274.9	303.6	372.8	435.2	462.2
72.5°	232.8	263.1	334.0	394.7	423.4
75°	190.6	222.7	291.8	350.9	377.8
77.5°	150.1	185.5	253.0	298.6	315.4
80°	111.3	145.1	204.1	236.2	249.6
82.5°	77.6	106.3	150.1	167.0	170.4
85°	48.9	67.5	91.1	101.2	99.5
87.5°	21.9	27.0	33.7	37.1	35.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)