

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: P277474

Luminaire Tested: **22CZ2-39HE-S-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277474  
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-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3507.0 lumens  
Efficiency: N/A  
Efficacy: 114.3 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

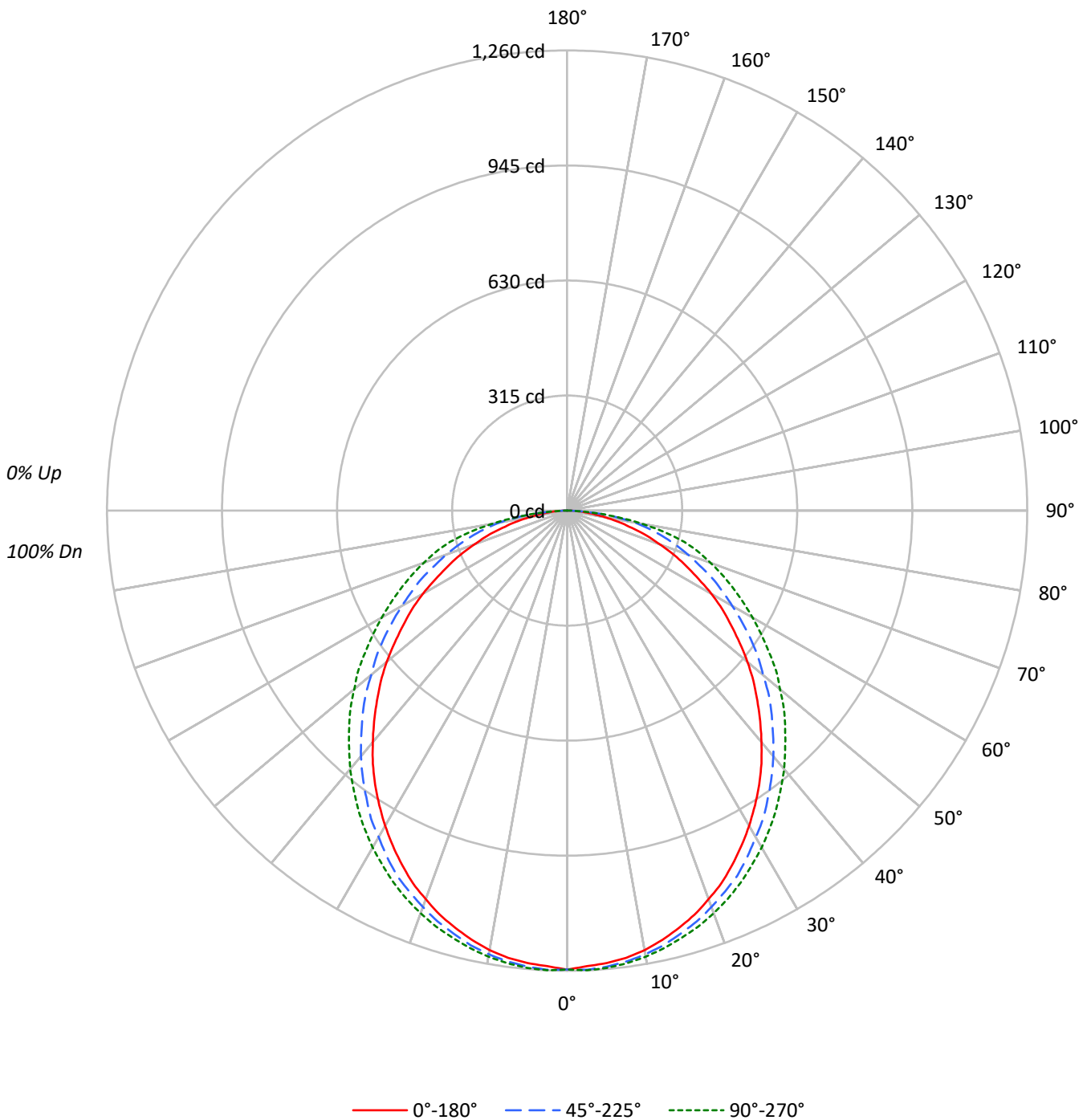
Input Watts (W): 30.69  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3382	3382	3382
5°	3359	3386	3395
10°	3340	3371	3389
15°	3296	3341	3373
20°	3243	3308	3360
25°	3177	3275	3338
30°	3096	3208	3310
35°	3010	3150	3279
40°	2909	3087	3248
45°	2802	3014	3213
50°	2699	2932	3185
55°	2572	2879	3163
60°	2457	2809	3153
65°	2292	2792	3188
70°	2112	2768	3283
75°	1906	2807	3454
80°	1649	2890	3245
85°	1365	2424	2424



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	118.8	3.4
10°-20°	338.2	9.6
20°-30°	506.0	14.4
30°-40°	599.3	17.1
40°-50°	610.7	17.4
50°-60°	547.4	15.6
60°-70°	428.6	12.2
70°-80°	276.4	7.9
80°-90°	81.6	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°	963.1	27.5
0°-40°	1562.3	44.5
0°-60°	2720.5	77.6
0°-90°	3507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3507.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1257	1257	1257	1257	1257	
5°	1244	1247	1253	1255	1257	118
15°	1183	1190	1199	1209	1211	334
25°	1070	1080	1103	1118	1124	493
35°	916	928	959	988	998	573
45°	736	753	792	833	844	569
55°	548	566	614	656	674	491
65°	360	381	438	481	501	358
75°	183	211	270	316	332	197
85°	44	60	78	78	78	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1256.7	1256.7	1256.7	1256.7	1256.7
2.5°	1248.5	1251.8	1258.3	1259.9	1259.9
5°	1243.6	1246.8	1253.4	1255.0	1256.7
7.5°	1235.4	1237.0	1245.2	1248.5	1250.1
10°	1222.3	1225.6	1233.8	1238.7	1240.3
12.5°	1204.3	1209.2	1219.0	1225.6	1227.2
15°	1183.0	1189.6	1199.4	1209.2	1210.9
17.5°	1160.1	1166.7	1179.8	1191.2	1194.5
20°	1132.3	1140.5	1155.2	1168.3	1173.2
22.5°	1104.5	1111.0	1129.0	1145.4	1150.3
25°	1070.1	1079.9	1102.9	1117.6	1124.1
27.5°	1034.1	1045.6	1068.5	1088.1	1094.7
30°	996.5	1008.0	1032.5	1057.0	1065.2
32.5°	957.2	970.3	999.8	1024.3	1032.5
35°	916.3	927.8	958.9	988.3	998.1
37.5°	873.8	883.6	919.6	950.7	960.5
40°	828.0	841.1	878.7	914.7	924.5
42.5°	782.1	796.9	834.5	873.8	883.6
45°	736.3	752.7	792.0	832.9	844.3
47.5°	692.1	705.2	749.4	788.7	805.1
50°	644.7	657.8	700.3	744.5	760.9
52.5°	595.6	613.6	659.4	702.0	721.6
55°	548.2	566.2	613.6	656.2	674.1
57.5°	504.0	518.7	567.8	612.0	630.0
60°	456.5	469.6	522.0	569.4	585.8
62.5°	405.8	425.4	479.4	523.6	543.2
65°	360.0	381.3	438.5	481.1	500.7
67.5°	317.4	337.1	392.7	438.5	459.8
70°	268.4	294.5	351.8	397.6	417.3
72.5°	229.1	252.0	310.9	356.7	378.0
75°	183.3	211.1	270.0	315.8	332.2
77.5°	145.6	173.4	229.1	265.1	273.3
80°	106.4	134.2	186.5	204.5	209.4
82.5°	72.0	98.2	134.2	139.1	140.7
85°	44.2	60.5	78.5	78.5	78.5
87.5°	21.3	24.5	27.8	26.2	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)