

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: P277308

Luminaire Tested: **22CZ2-39HE-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277308  
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-L92765-W2A1-U-5500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3445.0 lumens  
Efficiency: N/A  
Efficacy: 111.2 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

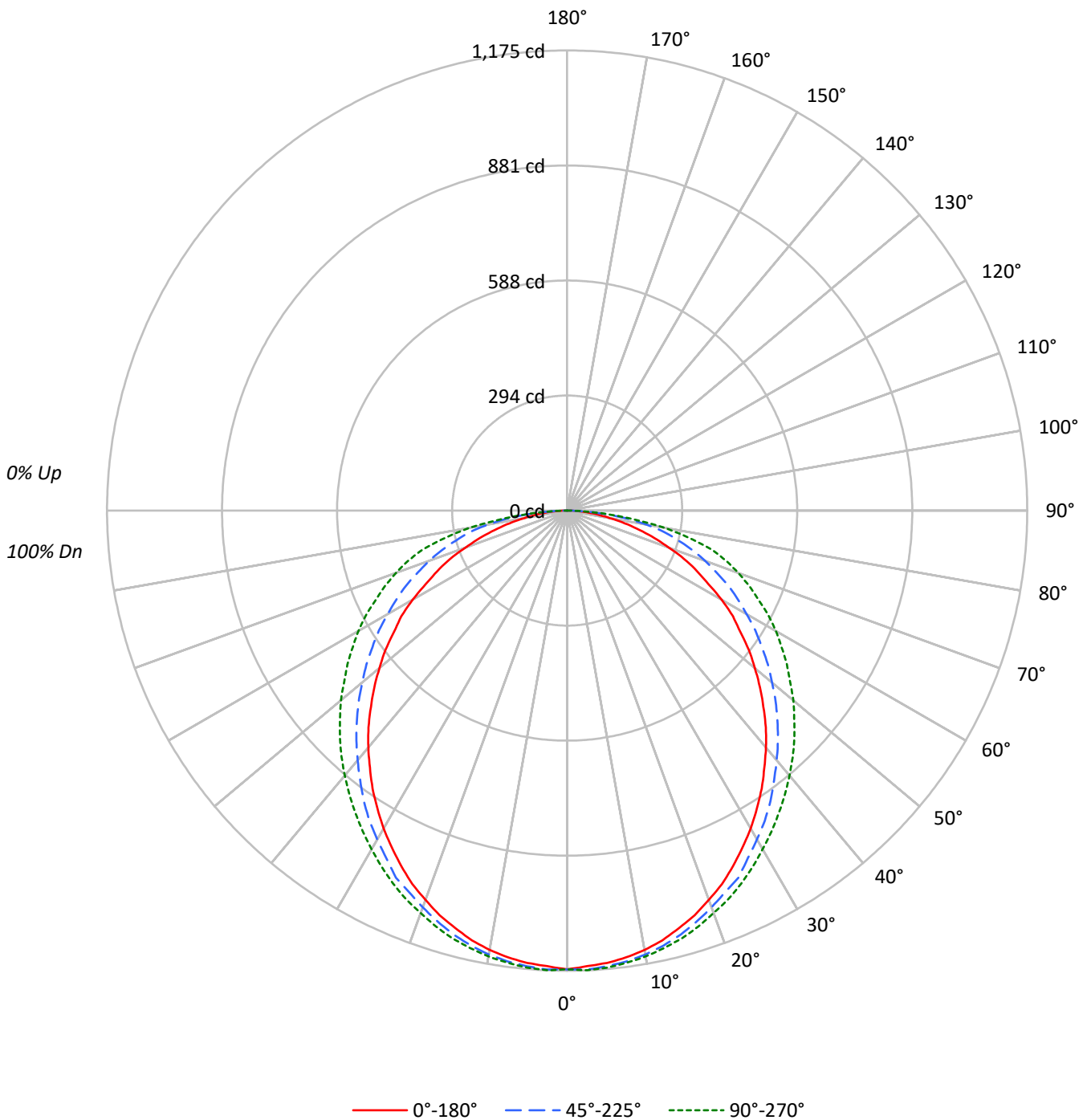
Input Watts (W): 30.969  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3152	3152	3152
5°	3132	3155	3164
10°	3113	3145	3159
15°	3075	3122	3150
20°	3029	3087	3131
25°	2975	3070	3121
30°	2913	3013	3103
35°	2846	2974	3096
40°	2775	2924	3103
45°	2697	2890	3123
50°	2619	2860	3158
55°	2529	2847	3213
60°	2454	2847	3312
65°	2332	2893	3433
70°	2174	2947	3655
75°	1992	3049	3948
80°	1734	3178	3888
85°	1519	2825	3088



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.8	3.2
10°-20°	315.5	9.2
20°-30°	473.7	13.7
30°-40°	566.0	16.4
40°-50°	588.6	17.1
50°-60°	545.5	15.8
60°-70°	447.4	13.0
70°-80°	302.5	8.8
80°-90°	95.0	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°	900.0	26.1
0°-40°	1466.0	42.6
0°-60°	2600.0	75.5
0°-90°	3445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3445.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1171	1171	1171	1171	1171	
5°	1160	1161	1168	1170	1171	110
15°	1104	1109	1120	1127	1131	311
25°	1002	1010	1034	1046	1051	461
35°	866	878	905	932	942	541
45°	709	722	759	804	820	547
55°	539	556	607	661	685	484
65°	366	386	454	514	539	362
75°	192	224	293	353	380	203
85°	49	68	92	102	100	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1171.4	1171.4	1171.4	1171.4	1171.4
2.5°	1164.6	1168.0	1173.1	1174.8	1174.8
5°	1159.5	1161.2	1168.0	1169.7	1171.4
7.5°	1151.0	1154.4	1161.2	1162.9	1164.6
10°	1139.2	1142.5	1151.0	1154.4	1156.1
12.5°	1123.9	1127.3	1137.5	1142.5	1144.2
15°	1103.6	1108.6	1120.5	1127.3	1130.7
17.5°	1083.2	1088.3	1100.2	1110.3	1113.7
20°	1057.8	1069.7	1078.1	1091.7	1093.4
22.5°	1032.4	1039.1	1054.4	1068.0	1074.7
25°	1001.8	1010.3	1034.1	1045.9	1051.0
27.5°	969.6	981.5	1000.2	1018.8	1025.6
30°	937.4	945.9	969.6	991.7	998.5
32.5°	901.8	913.7	939.1	961.2	971.3
35°	866.2	878.1	905.2	932.3	942.5
37.5°	827.2	840.8	867.9	900.1	913.7
40°	789.9	800.1	832.3	871.3	883.2
42.5°	751.0	762.8	796.7	839.1	852.7
45°	708.6	722.1	759.4	803.5	820.5
47.5°	667.9	681.5	722.1	766.2	786.6
50°	625.5	642.5	683.2	734.0	754.4
52.5°	584.8	600.1	645.9	698.4	717.1
55°	539.1	556.0	606.9	661.1	684.8
57.5°	501.8	513.6	569.6	625.5	649.3
60°	456.0	471.3	528.9	588.2	615.3
62.5°	406.8	432.3	491.6	552.6	579.7
65°	366.2	386.5	454.3	513.6	539.1
67.5°	323.8	345.8	411.9	474.6	503.5
70°	276.3	305.1	374.6	437.4	464.5
72.5°	233.9	264.4	335.6	396.7	425.5
75°	191.6	223.8	293.3	352.6	379.7
77.5°	150.9	186.5	254.3	300.0	317.0
80°	111.9	145.8	205.1	237.3	250.9
82.5°	78.0	106.8	150.9	167.8	171.2
85°	49.2	67.8	91.5	101.7	100.0
87.5°	22.0	27.1	33.9	37.3	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)