

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: P277309

Luminaire Tested: **22CZ2-39HE-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277309
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-5700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 111.4 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

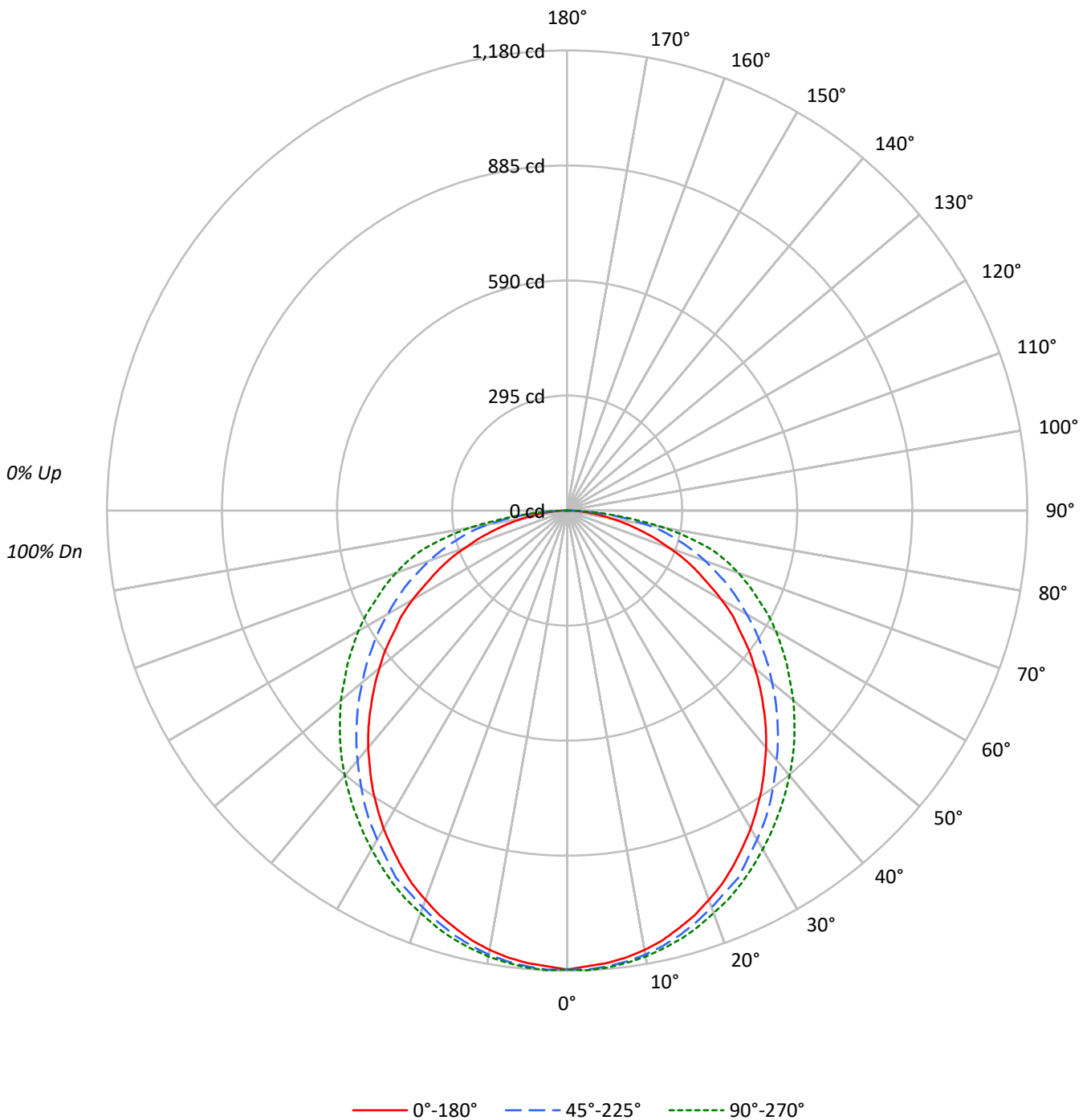
Input Watts (W): 31.062
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3166	3166	3166
5°	3146	3169	3178
10°	3126	3159	3173
15°	3088	3135	3164
20°	3042	3101	3145
25°	2988	3084	3134
30°	2925	3026	3116
35°	2858	2987	3110
40°	2787	2937	3116
45°	2708	2903	3136
50°	2630	2872	3172
55°	2540	2860	3227
60°	2465	2859	3326
65°	2342	2905	3447
70°	2183	2961	3670
75°	2000	3062	3965
80°	1742	3192	3905
85°	1525	2837	3103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	3.2
10°-20°	316.9	9.2
20°-30°	475.7	13.7
30°-40°	568.5	16.4
40°-50°	591.1	17.1
50°-60°	547.9	15.8
60°-70°	449.4	13.0
70°-80°	303.8	8.8
80°-90°	95.5	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°	903.9	26.1
0°-40°	1472.4	42.6
0°-60°	2611.4	75.5
0°-90°	3460.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3460.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1164	1166	1173	1175	1176	111
15°	1108	1114	1125	1132	1136	313
25°	1006	1015	1039	1050	1056	463
35°	870	882	909	936	947	544
45°	712	725	763	807	824	550
55°	541	558	610	664	688	487
65°	368	388	456	516	541	364
75°	192	225	294	354	381	204
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°	1176.5	1176.5	1176.5	1176.5	1176.5
2.5°	1169.7	1173.1	1178.2	1179.9	1179.9
5°	1164.5	1166.2	1173.1	1174.8	1176.5
7.5°	1156.0	1159.4	1166.2	1168.0	1169.7
10°	1144.1	1147.5	1156.0	1159.4	1161.1
12.5°	1128.8	1132.2	1142.4	1147.5	1149.2
15°	1108.4	1113.5	1125.4	1132.2	1135.6
17.5°	1087.9	1093.0	1105.0	1115.2	1118.6
20°	1062.4	1074.3	1082.8	1096.4	1098.1
22.5°	1036.9	1043.7	1059.0	1072.6	1079.4
25°	1006.2	1014.7	1038.6	1050.5	1055.6
27.5°	973.9	985.8	1004.5	1023.2	1030.0
30°	941.5	950.0	973.9	996.0	1002.8
32.5°	905.8	917.7	943.2	965.3	975.6
35°	870.0	881.9	909.2	936.4	946.6
37.5°	830.8	844.5	871.7	904.1	917.7
40°	793.4	803.6	836.0	875.1	887.0
42.5°	754.2	766.1	800.2	842.8	856.4
45°	711.7	725.3	762.7	807.0	824.0
47.5°	670.8	684.4	725.3	769.6	790.0
50°	628.2	645.3	686.1	737.2	757.6
52.5°	587.4	602.7	648.7	701.5	720.2
55°	541.4	558.4	609.5	664.0	687.8
57.5°	504.0	515.9	572.1	628.2	652.1
60°	458.0	473.3	531.2	590.8	618.0
62.5°	408.6	434.2	493.7	555.0	582.3
65°	367.8	388.2	456.3	515.9	541.4
67.5°	325.2	347.3	413.7	476.7	505.7
70°	277.5	306.5	376.3	439.3	466.5
72.5°	235.0	265.6	337.1	398.4	427.3
75°	192.4	224.7	294.5	354.1	381.4
77.5°	151.5	187.3	255.4	301.4	318.4
80°	112.4	146.4	206.0	238.4	252.0
82.5°	78.3	107.3	151.5	168.6	172.0
85°	49.4	68.1	91.9	102.2	100.5
87.5°	22.1	27.2	34.1	37.5	35.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)