

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: P277423

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277423
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-L82765-W2A1-U-5700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4036.0 lumens
Efficiency: N/A
Efficacy: 130.3 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

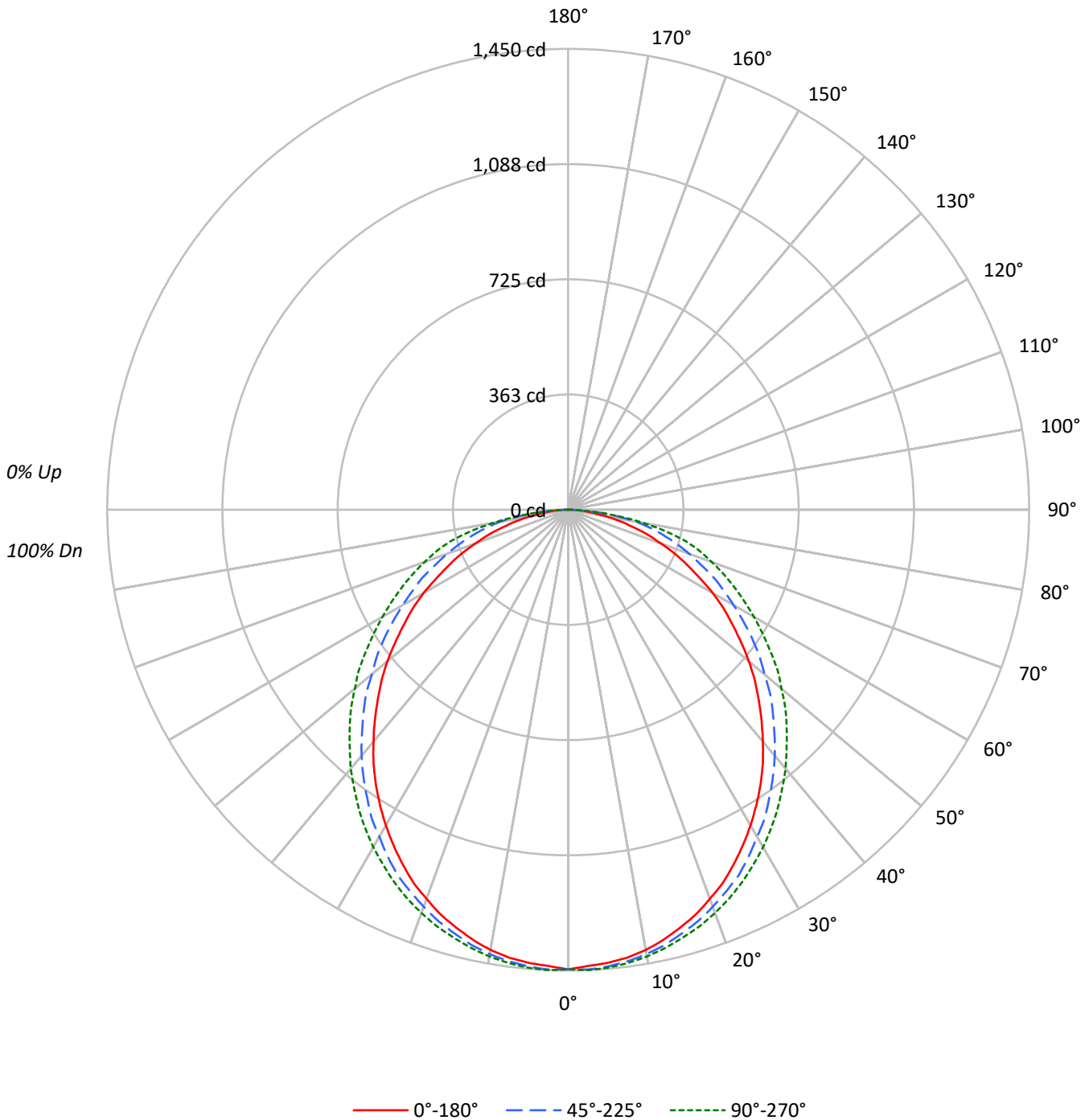
Input Watts (W): 30.969
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3892	3892	3892
5°	3866	3897	3907
10°	3844	3880	3900
15°	3793	3845	3882
20°	3732	3807	3867
25°	3657	3768	3841
30°	3563	3692	3809
35°	3464	3625	3774
40°	3347	3552	3738
45°	3225	3468	3698
50°	3106	3374	3666
55°	2959	3313	3640
60°	2828	3233	3629
65°	2638	3214	3669
70°	2430	3186	3778
75°	2193	3230	3975
80°	1897	3327	3735
85°	1568	2791	2791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.8	3.4
10°-20°	389.2	9.6
20°-30°	582.4	14.4
30°-40°	689.7	17.1
40°-50°	702.9	17.4
50°-60°	630.0	15.6
60°-70°	493.2	12.2
70°-80°	318.0	7.9
80°-90°	93.9	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°	1108.3	27.5
0°-40°	1798.0	44.5
0°-60°	3130.8	77.6
0°-90°	4036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1446	1446	1446	1446	1446	
5°	1431	1435	1442	1444	1446	136
15°	1362	1369	1380	1392	1394	384
25°	1232	1243	1269	1286	1294	567
35°	1054	1068	1104	1137	1149	659
45°	847	866	911	958	972	654
55°	631	652	706	755	776	566
65°	414	439	505	554	576	412
75°	211	243	311	363	382	226
85°	51	70	90	90	90	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1446.2	1446.2	1446.2	1446.2	1446.2
2.5°	1436.8	1440.6	1448.1	1450.0	1450.0
5°	1431.2	1434.9	1442.5	1444.3	1446.2
7.5°	1421.7	1423.6	1433.0	1436.8	1438.7
10°	1406.7	1410.4	1419.9	1425.5	1427.4
12.5°	1386.0	1391.6	1402.9	1410.4	1412.3
15°	1361.5	1369.0	1380.3	1391.6	1393.5
17.5°	1335.1	1342.7	1357.7	1370.9	1374.7
20°	1303.1	1312.5	1329.5	1344.5	1350.2
22.5°	1271.1	1278.6	1299.3	1318.2	1323.8
25°	1231.6	1242.8	1269.2	1286.2	1293.7
27.5°	1190.1	1203.3	1229.7	1252.3	1259.8
30°	1146.8	1160.0	1188.2	1216.5	1225.9
32.5°	1101.6	1116.7	1150.6	1178.8	1188.2
35°	1054.5	1067.7	1103.5	1137.4	1148.7
37.5°	1005.6	1016.9	1058.3	1094.1	1105.4
40°	952.9	967.9	1011.2	1052.7	1064.0
42.5°	900.1	917.1	960.4	1005.6	1016.9
45°	847.4	866.2	911.4	958.5	971.7
47.5°	796.6	811.6	862.5	907.7	926.5
50°	741.9	757.0	806.0	856.8	875.6
52.5°	685.5	706.2	758.9	807.9	830.4
55°	630.8	651.6	706.2	755.1	775.8
57.5°	580.0	596.9	653.4	704.3	725.0
60°	525.4	540.5	600.7	655.3	674.2
62.5°	467.0	489.6	551.7	602.6	625.2
65°	414.3	438.8	504.7	553.6	576.2
67.5°	365.3	387.9	451.9	504.7	529.2
70°	308.8	339.0	404.9	457.6	480.2
72.5°	263.6	290.0	357.8	410.5	435.0
75°	210.9	242.9	310.7	363.4	382.3
77.5°	167.6	199.6	263.6	305.1	314.5
80°	122.4	154.4	214.7	235.4	241.0
82.5°	82.9	113.0	154.4	160.1	161.9
85°	50.8	69.7	90.4	90.4	90.4
87.5°	24.5	28.2	32.0	30.1	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)