

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: P277421

Luminaire Tested: **22CZ2-39HE-S-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277421  
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-5000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3986.0 lumens  
Efficiency: N/A  
Efficacy: 129.1 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

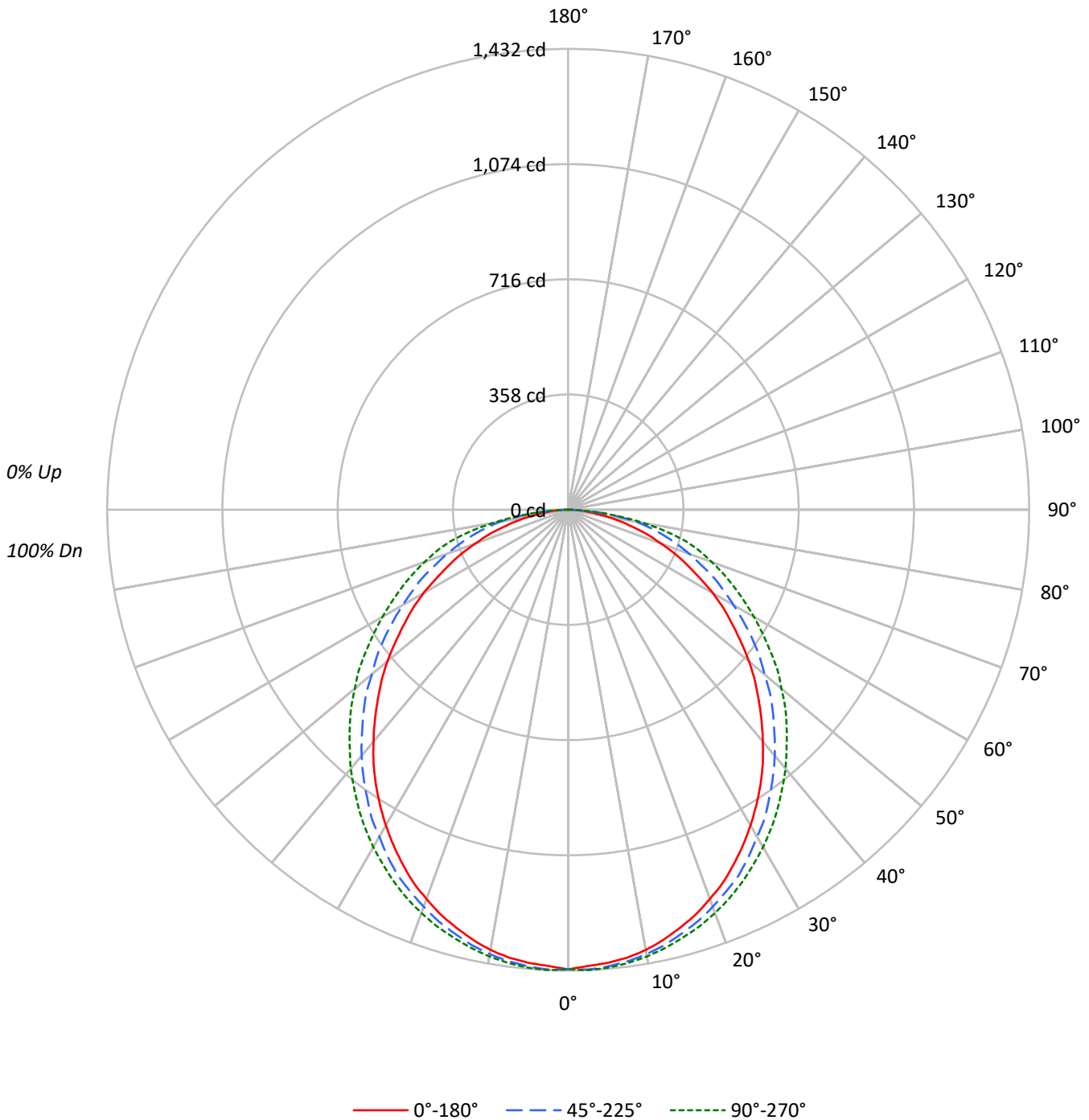
Input Watts (W): 30.876  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3844	3844	3844
5°	3818	3848	3858
10°	3796	3832	3852
15°	3746	3798	3834
20°	3686	3760	3819
25°	3611	3722	3794
30°	3519	3646	3762
35°	3421	3580	3727
40°	3306	3508	3691
45°	3185	3425	3652
50°	3068	3332	3620
55°	2923	3272	3595
60°	2793	3193	3583
65°	2606	3174	3624
70°	2400	3146	3731
75°	2166	3191	3925
80°	1874	3285	3690
85°	1550	2757	2757



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.1	3.4
10°-20°	384.4	9.6
20°-30°	575.1	14.4
30°-40°	681.1	17.1
40°-50°	694.1	17.4
50°-60°	622.1	15.6
60°-70°	487.1	12.2
70°-80°	314.1	7.9
80°-90°	92.8	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°	1094.6	27.5
0°-40°	1775.7	44.5
0°-60°	3092.0	77.6
0°-90°	3986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3986.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1428	1428	1428	1428	1428	
5°	1413	1417	1425	1426	1428	134
15°	1345	1352	1363	1374	1376	379
25°	1216	1228	1254	1270	1278	560
35°	1042	1054	1090	1123	1134	651
45°	837	856	900	947	960	646
55°	623	644	697	746	766	559
65°	409	433	498	547	569	406
75°	208	240	307	359	378	223
85°	50	69	89	89	89	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1428.3	1428.3	1428.3	1428.3	1428.3
2.5°	1419.0	1422.7	1430.2	1432.0	1432.0
5°	1413.4	1417.1	1424.6	1426.4	1428.3
7.5°	1404.1	1406.0	1415.3	1419.0	1420.9
10°	1389.3	1393.0	1402.3	1407.9	1409.7
12.5°	1368.8	1374.4	1385.5	1393.0	1394.8
15°	1344.6	1352.1	1363.2	1374.4	1376.2
17.5°	1318.6	1326.0	1340.9	1353.9	1357.6
20°	1287.0	1296.3	1313.0	1327.9	1333.5
22.5°	1255.3	1262.8	1283.2	1301.8	1307.4
25°	1216.3	1227.5	1253.5	1270.2	1277.7
27.5°	1175.4	1188.4	1214.4	1236.8	1244.2
30°	1132.6	1145.6	1173.5	1201.4	1210.7
32.5°	1088.0	1102.8	1136.3	1164.2	1173.5
35°	1041.5	1054.5	1089.8	1123.3	1134.5
37.5°	993.1	1004.3	1045.2	1080.5	1091.7
40°	941.0	955.9	998.7	1039.6	1050.8
42.5°	889.0	905.7	948.5	993.1	1004.3
45°	836.9	855.5	900.1	946.6	959.6
47.5°	786.7	801.6	851.8	896.4	915.0
50°	732.8	747.6	796.0	846.2	864.8
52.5°	677.0	697.4	749.5	797.8	820.2
55°	623.0	643.5	697.4	745.8	766.2
57.5°	572.8	589.5	645.3	695.6	716.0
60°	518.9	533.8	593.3	647.2	665.8
62.5°	461.2	483.5	544.9	595.1	617.4
65°	409.2	433.3	498.4	546.8	569.1
67.5°	360.8	383.1	446.3	498.4	522.6
70°	305.0	334.8	399.9	451.9	474.2
72.5°	260.4	286.4	353.4	405.4	429.6
75°	208.3	239.9	306.9	358.9	377.5
77.5°	165.5	197.1	260.4	301.3	310.6
80°	120.9	152.5	212.0	232.5	238.1
82.5°	81.8	111.6	152.5	158.1	159.9
85°	50.2	68.8	89.3	89.3	89.3
87.5°	24.2	27.9	31.6	29.8	29.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)