

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: P277431

Luminaire Tested: **22CZ2-44HE-S-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277431  
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: 22CZ2-44HE-S-UNV-L82765-W2A1-U-5500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4515.0 lumens  
Efficiency: N/A  
Efficacy: 127.1 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

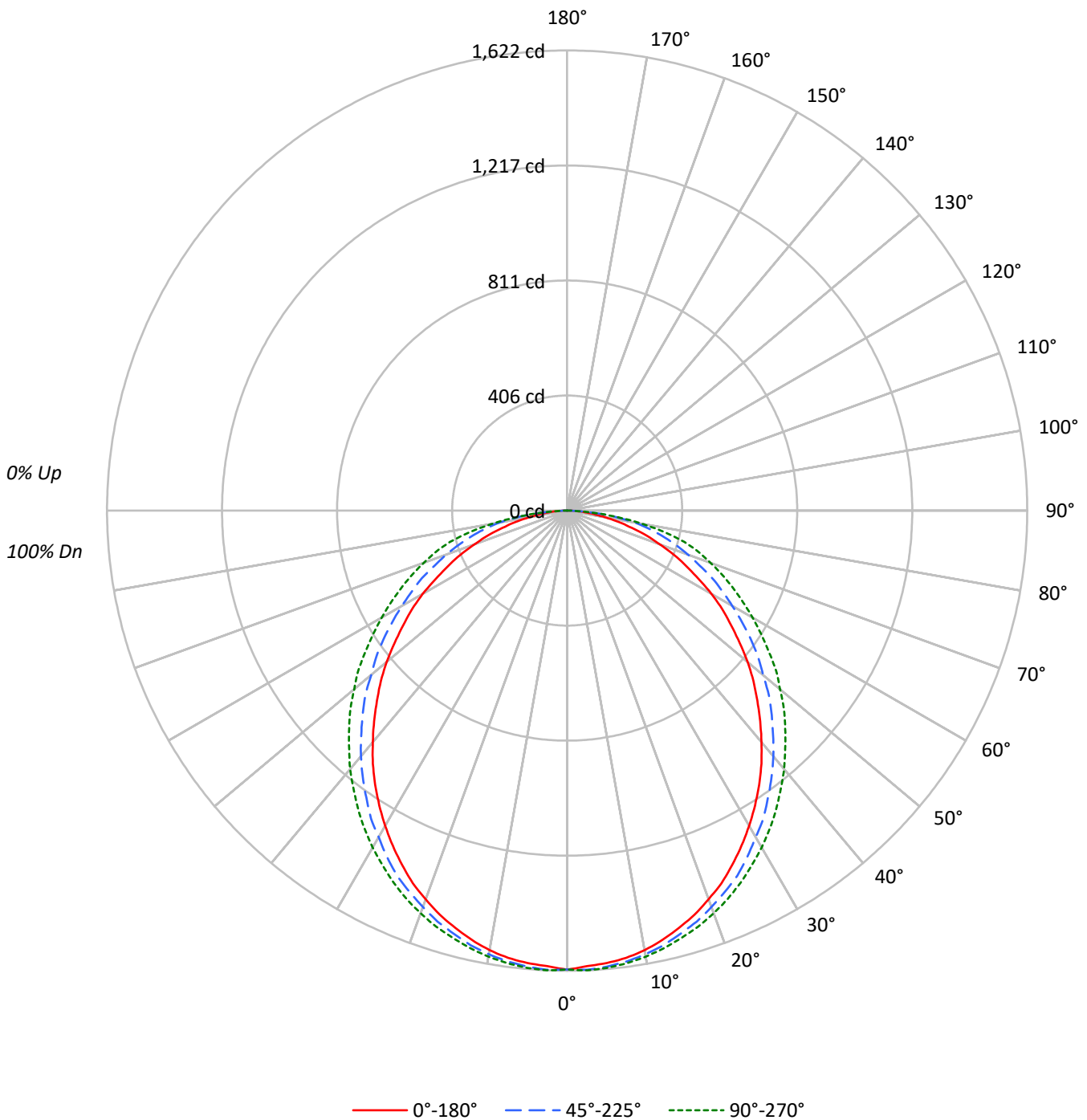
Input Watts (W): 35.526  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4354	4354	4354
5°	4325	4359	4370
10°	4300	4340	4363
15°	4243	4302	4343
20°	4175	4259	4325
25°	4091	4216	4297
30°	3986	4131	4261
35°	3875	4055	4221
40°	3744	3974	4181
45°	3608	3880	4137
50°	3475	3774	4101
55°	3311	3706	4072
60°	3163	3617	4059
65°	2951	3595	4104
70°	2718	3563	4227
75°	2453	3614	4446
80°	2122	3722	4178
85°	1757	3122	3122



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	153.0	3.4
10°-20°	435.4	9.6
20°-30°	651.5	14.4
30°-40°	771.5	17.1
40°-50°	786.3	17.4
50°-60°	704.7	15.6
60°-70°	551.7	12.2
70°-80°	355.8	7.9
80°-90°	105.1	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°	1239.9	27.5
0°-40°	2011.4	44.5
0°-60°	3502.4	77.6
0°-90°	4515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4515.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1618	1618	1618	1618	1618	
5°	1601	1605	1614	1616	1618	152
15°	1523	1532	1544	1557	1559	429
25°	1378	1390	1420	1439	1447	634
35°	1180	1194	1234	1272	1285	737
45°	948	969	1020	1072	1087	732
55°	706	729	790	845	868	633
65°	464	491	565	619	645	460
75°	236	272	348	407	428	253
85°	57	78	101	101	101	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1617.9	1617.9	1617.9	1617.9	1617.9
2.5°	1607.3	1611.5	1620.0	1622.1	1622.1
5°	1601.0	1605.2	1613.7	1615.8	1617.9
7.5°	1590.5	1592.6	1603.1	1607.3	1609.4
10°	1573.6	1577.8	1588.4	1594.7	1596.8
12.5°	1550.5	1556.8	1569.4	1577.8	1579.9
15°	1523.1	1531.5	1544.1	1556.8	1558.9
17.5°	1493.6	1502.0	1518.9	1533.6	1537.8
20°	1457.8	1468.3	1487.3	1504.1	1510.4
22.5°	1422.0	1430.4	1453.6	1474.6	1480.9
25°	1377.7	1390.4	1419.8	1438.8	1447.2
27.5°	1331.4	1346.1	1375.6	1400.9	1409.3
30°	1282.9	1297.7	1329.3	1360.9	1371.4
32.5°	1232.4	1249.2	1287.1	1318.7	1329.3
35°	1179.7	1194.4	1234.5	1272.4	1285.0
37.5°	1124.9	1137.6	1183.9	1223.9	1236.6
40°	1065.9	1082.8	1131.2	1177.6	1190.2
42.5°	1007.0	1025.9	1074.4	1124.9	1137.6
45°	948.0	969.0	1019.6	1072.3	1087.0
47.5°	891.1	907.9	964.8	1015.4	1036.4
50°	830.0	846.9	901.6	958.5	979.6
52.5°	766.8	790.0	849.0	903.7	929.0
55°	705.7	728.9	790.0	844.7	867.9
57.5°	648.8	667.8	731.0	787.9	811.0
60°	587.7	604.6	672.0	733.1	754.2
62.5°	522.4	547.7	617.2	674.1	699.4
65°	463.5	490.8	564.6	619.3	644.6
67.5°	408.7	434.0	505.6	564.6	592.0
70°	345.5	379.2	452.9	511.9	537.2
72.5°	294.9	324.4	400.3	459.2	486.6
75°	235.9	271.8	347.6	406.6	427.6
77.5°	187.5	223.3	294.9	341.3	351.8
80°	136.9	172.7	240.2	263.3	269.6
82.5°	92.7	126.4	172.7	179.1	181.2
85°	56.9	77.9	101.1	101.1	101.1
87.5°	27.4	31.6	35.8	33.7	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)