

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: P277348

Luminaire Tested: **22CZ2-44HE-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277348  
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-L83050-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4603.0 lumens  
Efficiency: N/A  
Efficacy: 126.9 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

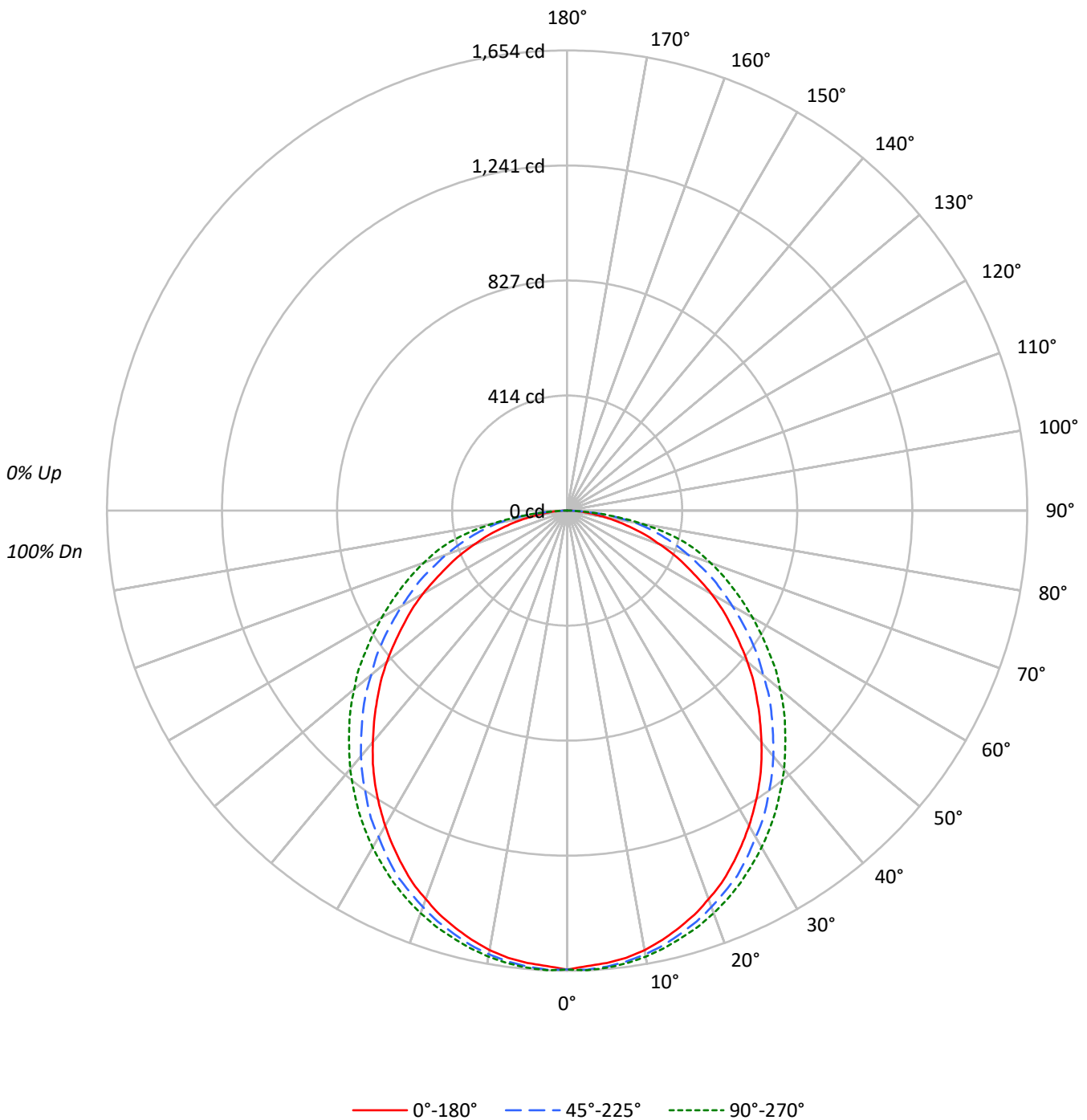
Input Watts (W): 36.27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4439	4439	4439
5°	4409	4444	4455
10°	4384	4425	4448
15°	4326	4386	4428
20°	4256	4342	4410
25°	4170	4298	4381
30°	4064	4211	4344
35°	3951	4134	4304
40°	3817	4051	4262
45°	3678	3956	4217
50°	3543	3848	4181
55°	3376	3779	4151
60°	3225	3687	4138
65°	3009	3665	4185
70°	2771	3633	4309
75°	2501	3685	4533
80°	2163	3794	4260
85°	1791	3183	3183



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.0	3.4
10°-20°	443.9	9.6
20°-30°	664.2	14.4
30°-40°	786.6	17.1
40°-50°	801.6	17.4
50°-60°	718.5	15.6
60°-70°	562.5	12.2
70°-80°	362.7	7.9
80°-90°	107.2	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°	1264.1	27.5
0°-40°	2050.6	44.5
0°-60°	3570.7	77.6
0°-90°	4603.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4603.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1649	1649	1649	1649	1649	
5°	1632	1636	1645	1647	1649	155
15°	1553	1561	1574	1587	1589	438
25°	1405	1418	1448	1467	1475	647
35°	1203	1218	1258	1297	1310	752
45°	966	988	1040	1093	1108	746
55°	720	743	805	861	885	645
65°	472	500	576	631	657	469
75°	240	277	354	414	436	258
85°	58	80	103	103	103	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1649.4	1649.4	1649.4	1649.4	1649.4
2.5°	1638.7	1643.0	1651.5	1653.7	1653.7
5°	1632.2	1636.5	1645.1	1647.3	1649.4
7.5°	1621.5	1623.6	1634.4	1638.7	1640.8
10°	1604.3	1608.6	1619.3	1625.8	1627.9
12.5°	1580.7	1587.1	1600.0	1608.6	1610.7
15°	1552.8	1561.3	1574.2	1587.1	1589.3
17.5°	1522.7	1531.3	1548.5	1563.5	1567.8
20°	1486.2	1496.9	1516.2	1533.4	1539.9
22.5°	1449.7	1458.3	1481.9	1503.4	1509.8
25°	1404.6	1417.5	1447.5	1466.8	1475.4
27.5°	1357.3	1372.4	1402.4	1428.2	1436.8
30°	1307.9	1323.0	1355.2	1387.4	1398.1
32.5°	1256.4	1273.6	1312.2	1344.4	1355.2
35°	1202.7	1217.7	1258.5	1297.2	1310.1
37.5°	1146.8	1159.7	1207.0	1247.8	1260.7
40°	1086.7	1103.9	1153.3	1200.5	1213.4
42.5°	1026.6	1045.9	1095.3	1146.8	1159.7
45°	966.4	987.9	1039.5	1093.2	1108.2
47.5°	908.5	925.6	983.6	1035.2	1056.6
50°	846.2	863.4	919.2	977.2	998.7
52.5°	781.7	805.4	865.5	921.3	947.1
55°	719.5	743.1	805.4	861.2	884.8
57.5°	661.5	680.8	745.2	803.2	826.8
60°	599.2	616.4	685.1	747.4	768.9
62.5°	532.6	558.4	629.3	687.2	713.0
65°	472.5	500.4	575.6	631.4	657.2
67.5°	416.6	442.4	515.4	575.6	603.5
70°	352.2	386.6	461.7	521.9	547.7
72.5°	300.7	330.7	408.1	468.2	496.1
75°	240.5	277.0	354.4	414.5	436.0
77.5°	191.1	227.7	300.7	347.9	358.7
80°	139.6	176.1	244.8	268.5	274.9
82.5°	94.5	128.9	176.1	182.6	184.7
85°	58.0	79.5	103.1	103.1	103.1
87.5°	27.9	32.2	36.5	34.4	34.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)