

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: P277429

Luminaire Tested: **22CZ2-44HE-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277429  
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-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: 4411.0 lumens  
Efficiency: N/A  
Efficacy: 125.1 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

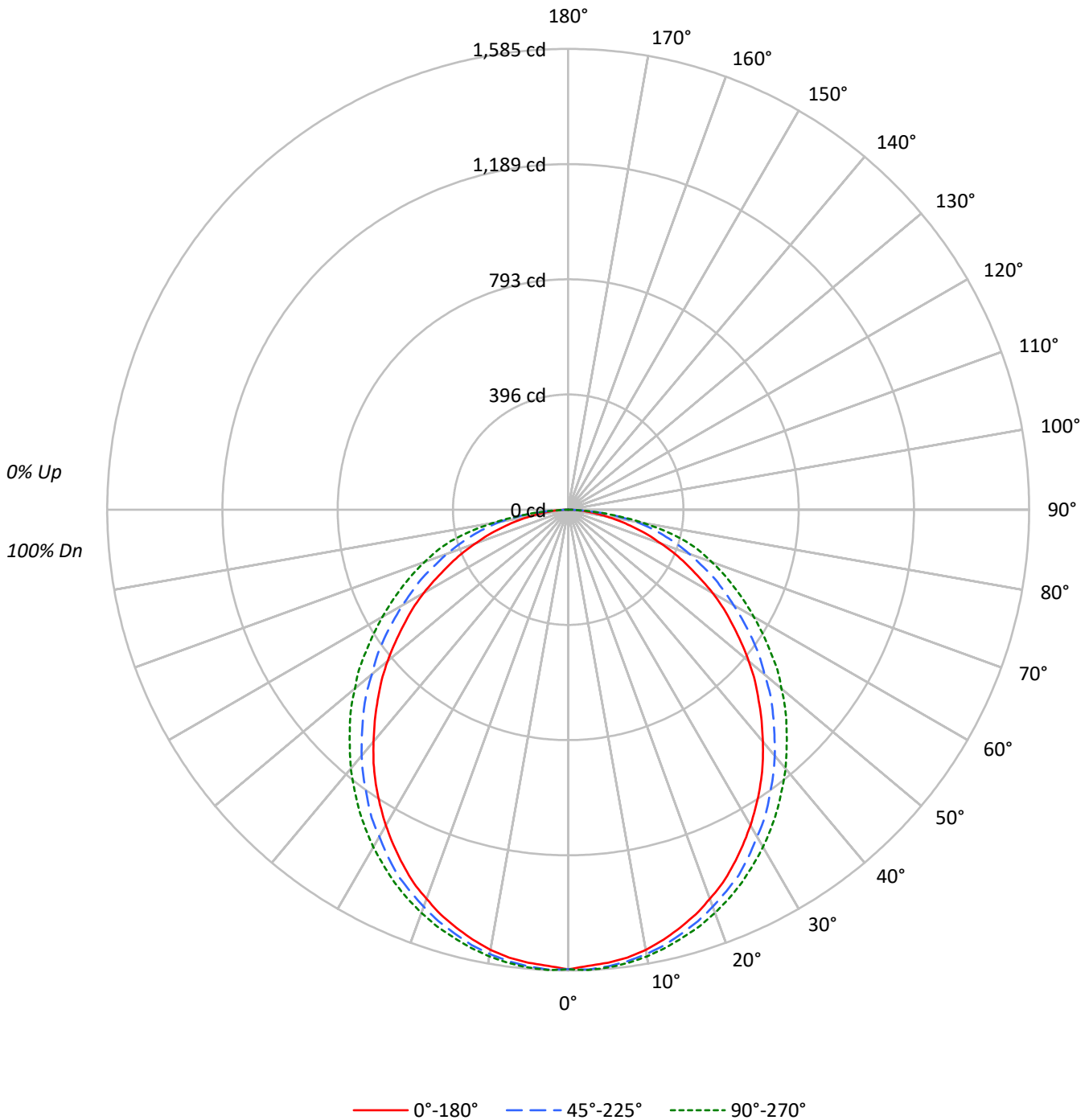
Input Watts (W): 35.247  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4253	4253	4253
5°	4225	4259	4270
10°	4201	4240	4263
15°	4145	4203	4243
20°	4078	4161	4226
25°	3996	4119	4198
30°	3895	4035	4163
35°	3786	3962	4124
40°	3658	3882	4085
45°	3524	3791	4042
50°	3395	3688	4006
55°	3235	3621	3978
60°	3090	3533	3965
65°	2883	3512	4010
70°	2655	3482	4129
75°	2397	3531	4344
80°	2073	3636	4082
85°	1717	3051	3051



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.5	3.4
10°-20°	425.4	9.6
20°-30°	636.5	14.4
30°-40°	753.7	17.1
40°-50°	768.2	17.4
50°-60°	688.5	15.6
60°-70°	539.0	12.2
70°-80°	347.6	7.9
80°-90°	102.7	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°	1211.3	27.5
0°-40°	1965.1	44.5
0°-60°	3421.7	77.6
0°-90°	4411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4411.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1581	1581	1581	1581	1581	
5°	1564	1568	1576	1578	1581	149
15°	1488	1496	1509	1521	1523	420
25°	1346	1358	1387	1406	1414	620
35°	1152	1167	1206	1243	1255	720
45°	926	947	996	1048	1062	715
55°	690	712	772	825	848	618
65°	453	480	552	605	630	450
75°	230	266	340	397	418	247
85°	56	76	99	99	99	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1580.6	1580.6	1580.6	1580.6	1580.6
2.5°	1570.3	1574.4	1582.7	1584.7	1584.7
5°	1564.1	1568.3	1576.5	1578.5	1580.6
7.5°	1553.8	1555.9	1566.2	1570.3	1572.4
10°	1537.4	1541.5	1551.8	1558.0	1560.0
12.5°	1514.7	1520.9	1533.3	1541.5	1543.6
15°	1488.0	1496.2	1508.6	1520.9	1523.0
17.5°	1459.2	1467.4	1483.9	1498.3	1502.4
20°	1424.2	1434.5	1453.0	1469.5	1475.6
22.5°	1389.2	1397.4	1420.1	1440.6	1446.8
25°	1346.0	1358.3	1387.1	1405.7	1413.9
27.5°	1300.7	1315.1	1343.9	1368.6	1376.8
30°	1253.4	1267.8	1298.6	1329.5	1339.8
32.5°	1204.0	1220.4	1257.5	1288.4	1298.6
35°	1152.5	1166.9	1206.0	1243.1	1255.4
37.5°	1099.0	1111.4	1156.6	1195.7	1208.1
40°	1041.4	1057.8	1105.2	1150.5	1162.8
42.5°	983.8	1002.3	1049.6	1099.0	1111.4
45°	926.1	946.7	996.1	1047.6	1062.0
47.5°	870.6	887.0	942.6	992.0	1012.6
50°	810.9	827.3	880.9	936.4	957.0
52.5°	749.1	771.8	829.4	882.9	907.6
55°	689.5	712.1	771.8	825.3	847.9
57.5°	633.9	652.4	714.2	769.7	792.4
60°	574.2	590.7	656.5	716.2	736.8
62.5°	510.4	535.1	603.0	658.6	683.3
65°	452.8	479.5	551.6	605.1	629.8
67.5°	399.3	424.0	493.9	551.6	578.3
70°	337.5	370.5	442.5	500.1	524.8
72.5°	288.1	316.9	391.0	448.7	475.4
75°	230.5	265.5	339.6	397.2	417.8
77.5°	183.2	218.2	288.1	333.4	343.7
80°	133.8	168.8	234.6	257.3	263.4
82.5°	90.6	123.5	168.8	174.9	177.0
85°	55.6	76.1	98.8	98.8	98.8
87.5°	26.8	30.9	35.0	32.9	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)