

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: P277428

Luminaire Tested: **22CZ2-44HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277428  
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-4000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4335.0 lumens  
Efficiency: N/A  
Efficacy: 124.0 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

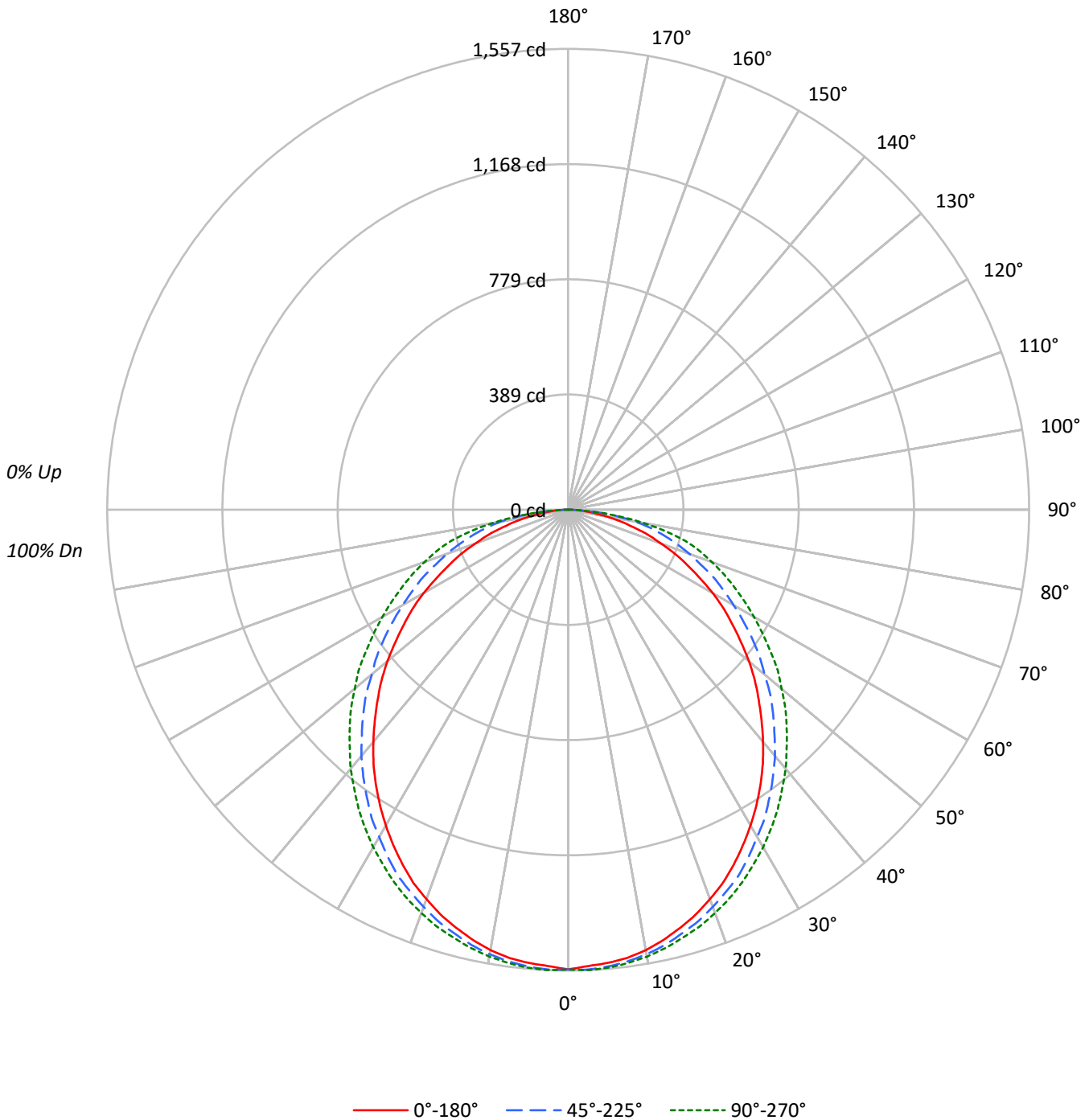
Input Watts (W): 34.968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4180	4180	4180
5°	4152	4185	4196
10°	4129	4167	4189
15°	4074	4130	4170
20°	4008	4089	4153
25°	3928	4048	4126
30°	3828	3966	4091
35°	3721	3894	4053
40°	3595	3815	4014
45°	3464	3725	3972
50°	3336	3624	3937
55°	3179	3559	3909
60°	3037	3472	3897
65°	2833	3452	3941
70°	2610	3422	4058
75°	2355	3470	4269
80°	2038	3574	4012
85°	1686	2998	2998



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.9	3.4
10°-20°	418.0	9.6
20°-30°	625.5	14.4
30°-40°	740.8	17.1
40°-50°	754.9	17.4
50°-60°	676.6	15.6
60°-70°	529.7	12.2
70°-80°	341.6	7.9
80°-90°	100.9	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°	1190.4	27.5
0°-40°	1931.2	44.5
0°-60°	3362.8	77.6
0°-90°	4335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4335.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1537	1541	1549	1551	1553	146
15°	1462	1470	1483	1495	1497	412
25°	1323	1335	1363	1381	1390	609
35°	1133	1147	1185	1222	1234	708
45°	910	930	979	1030	1044	703
55°	678	700	758	811	833	608
65°	445	471	542	595	619	442
75°	226	261	334	390	411	243
85°	55	75	97	97	97	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1553.4	1553.4	1553.4	1553.4	1553.4
2.5°	1543.3	1547.3	1555.4	1557.4	1557.4
5°	1537.2	1541.2	1549.3	1551.3	1553.4
7.5°	1527.1	1529.1	1539.2	1543.3	1545.3
10°	1510.9	1514.9	1525.0	1531.1	1533.1
12.5°	1488.6	1494.7	1506.8	1514.9	1517.0
15°	1462.3	1470.4	1482.6	1494.7	1496.7
17.5°	1434.0	1442.1	1458.3	1472.5	1476.5
20°	1399.6	1409.8	1428.0	1444.1	1450.2
22.5°	1365.3	1373.4	1395.6	1415.8	1421.9
25°	1322.8	1334.9	1363.2	1381.4	1389.5
27.5°	1278.3	1292.4	1320.8	1345.0	1353.1
30°	1231.8	1245.9	1276.3	1306.6	1316.7
32.5°	1183.2	1199.4	1235.8	1266.2	1276.3
35°	1132.7	1146.8	1185.3	1221.7	1233.8
37.5°	1080.1	1092.2	1136.7	1175.1	1187.3
40°	1023.4	1039.6	1086.1	1130.6	1142.8
42.5°	966.8	985.0	1031.5	1080.1	1092.2
45°	910.2	930.4	978.9	1029.5	1043.7
47.5°	855.6	871.7	926.4	974.9	995.1
50°	796.9	813.1	865.7	920.3	940.5
52.5°	736.2	758.5	815.1	867.7	892.0
55°	677.6	699.8	758.5	811.1	833.3
57.5°	623.0	641.2	701.8	756.5	778.7
60°	564.3	580.5	645.2	703.9	724.1
62.5°	501.6	525.9	592.6	647.2	671.5
65°	445.0	471.3	542.1	594.6	618.9
67.5°	392.4	416.7	485.4	542.1	568.4
70°	331.7	364.1	434.9	491.5	515.8
72.5°	283.2	311.5	384.3	440.9	467.2
75°	226.5	260.9	333.7	390.4	410.6
77.5°	180.0	214.4	283.2	327.7	337.8
80°	131.5	165.9	230.6	252.8	258.9
82.5°	89.0	121.4	165.9	171.9	173.9
85°	54.6	74.8	97.1	97.1	97.1
87.5°	26.3	30.3	34.4	32.4	32.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)