

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: P276058

Luminaire Tested: **24CZ2-35HE-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276058  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-35HE-UNV-L82765-W2A1-U-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3470.9 lumens  
Efficiency: N/A  
Efficacy: 139.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

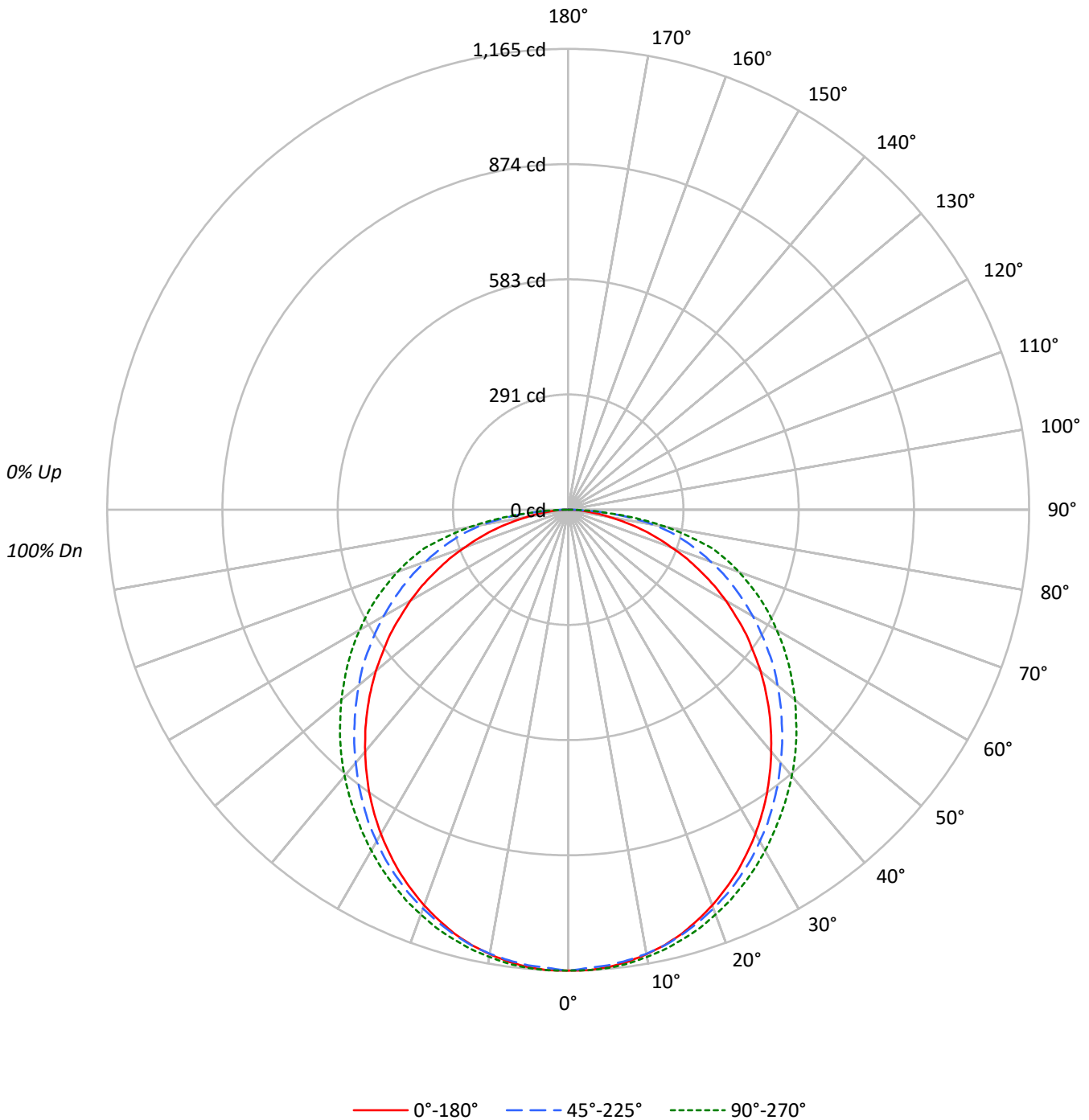
Input Watts (W): 24.831  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276058

CATALOG NUMBER: 24CZ2-35HE-UNV-L82765-W2A1-U-5700K

### Luminous Intensity Polar Plot





TEST NUMBER: P276058

CATALOG NUMBER: 24CZ2-35HE-UNV-L82765-W2A1-U-5700K

**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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1568	1568	1568
5°	1568	1561	1571
10°	1559	1557	1568
15°	1546	1549	1565
20°	1524	1536	1559
25°	1500	1522	1553
30°	1470	1505	1546
35°	1438	1486	1541
40°	1402	1467	1544
45°	1367	1453	1552
50°	1329	1445	1566
55°	1288	1443	1595
60°	1238	1449	1637
65°	1173	1472	1707
70°	1089	1508	1805
75°	993	1584	1957
80°	817	1705	1956
85°	625	1573	1681



TEST NUMBER: P276058

CATALOG NUMBER: 24CZ2-35HE-UNV-L82765-W2A1-U-5700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.2	3.2
10°-20°	314.7	9.1
20°-30°	473.5	13.6
30°-40°	567.4	16.3
40°-50°	591.3	17.0
50°-60°	550.2	15.9
60°-70°	453.1	13.1
70°-80°	308.6	8.9
80°-90°	101.9	2.9
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°	898.4	25.9
0°-40°	1465.8	42.2
0°-60°	2607.3	75.1
0°-90°	3470.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3470.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1165	1165	1165	1165	1165	
5°	1161	1161	1156	1162	1163	110
15°	1110	1111	1112	1122	1124	313
25°	1010	1015	1025	1042	1046	465
35°	876	886	905	929	938	547
45°	718	733	763	802	816	554
55°	549	568	615	664	680	489
65°	368	400	462	517	536	366
75°	191	234	305	359	376	202
85°	40	79	102	109	109	50
90°	0	0	0	0	0	



TEST NUMBER: P276058

CATALOG NUMBER: 24CZ2-35HE-UNV-L82765-W2A1-U-5700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1165.3	1165.3	1165.3	1165.3	1165.3
2.5°	1165.3	1165.3	1159.5	1165.3	1165.3
5°	1160.7	1160.7	1156.1	1161.9	1163.0
7.5°	1152.6	1153.7	1149.1	1156.1	1157.2
10°	1141.0	1142.2	1139.8	1146.8	1148.0
12.5°	1127.1	1128.3	1128.3	1136.4	1137.5
15°	1109.7	1110.9	1112.0	1122.5	1123.6
17.5°	1087.7	1091.2	1093.5	1106.3	1108.6
20°	1064.6	1068.0	1072.7	1086.6	1088.9
22.5°	1037.9	1042.5	1050.7	1065.7	1069.2
25°	1010.1	1014.7	1025.2	1042.5	1046.0
27.5°	978.8	985.8	998.5	1017.1	1021.7
30°	946.4	953.3	968.4	988.1	995.1
32.5°	911.6	920.9	938.3	960.3	967.3
35°	875.7	886.2	904.7	929.0	938.3
37.5°	837.5	849.1	871.1	897.7	909.3
40°	798.1	812.0	835.2	866.5	879.2
42.5°	758.7	771.5	800.4	834.0	847.9
45°	718.2	733.3	763.4	801.6	815.5
47.5°	676.5	691.6	727.5	768.0	780.8
50°	634.8	649.9	690.4	733.3	748.3
52.5°	589.6	609.3	655.6	698.5	713.6
55°	549.1	567.6	615.1	663.8	680.0
57.5°	502.7	524.7	576.9	627.8	645.2
60°	459.9	483.0	538.6	590.8	608.2
62.5°	415.9	441.3	500.4	553.7	573.4
65°	368.4	399.6	462.2	516.6	536.3
67.5°	325.5	357.9	424.0	479.6	496.9
70°	276.9	316.2	383.4	439.0	458.7
72.5°	235.2	274.5	345.2	399.6	419.3
75°	191.1	234.0	304.7	359.1	376.5
77.5°	147.1	194.6	265.3	307.0	312.8
80°	105.4	155.2	220.1	244.4	252.5
82.5°	74.1	119.3	162.2	178.4	183.0
85°	40.5	78.8	101.9	108.9	108.9
87.5°	17.4	33.6	40.5	41.7	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)