

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: P276060

Luminaire Tested: **24CZ2-40HE-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276060  
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: 24CZ2-40HE-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3535.2 lumens  
Efficiency: N/A  
Efficacy: 125.0 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

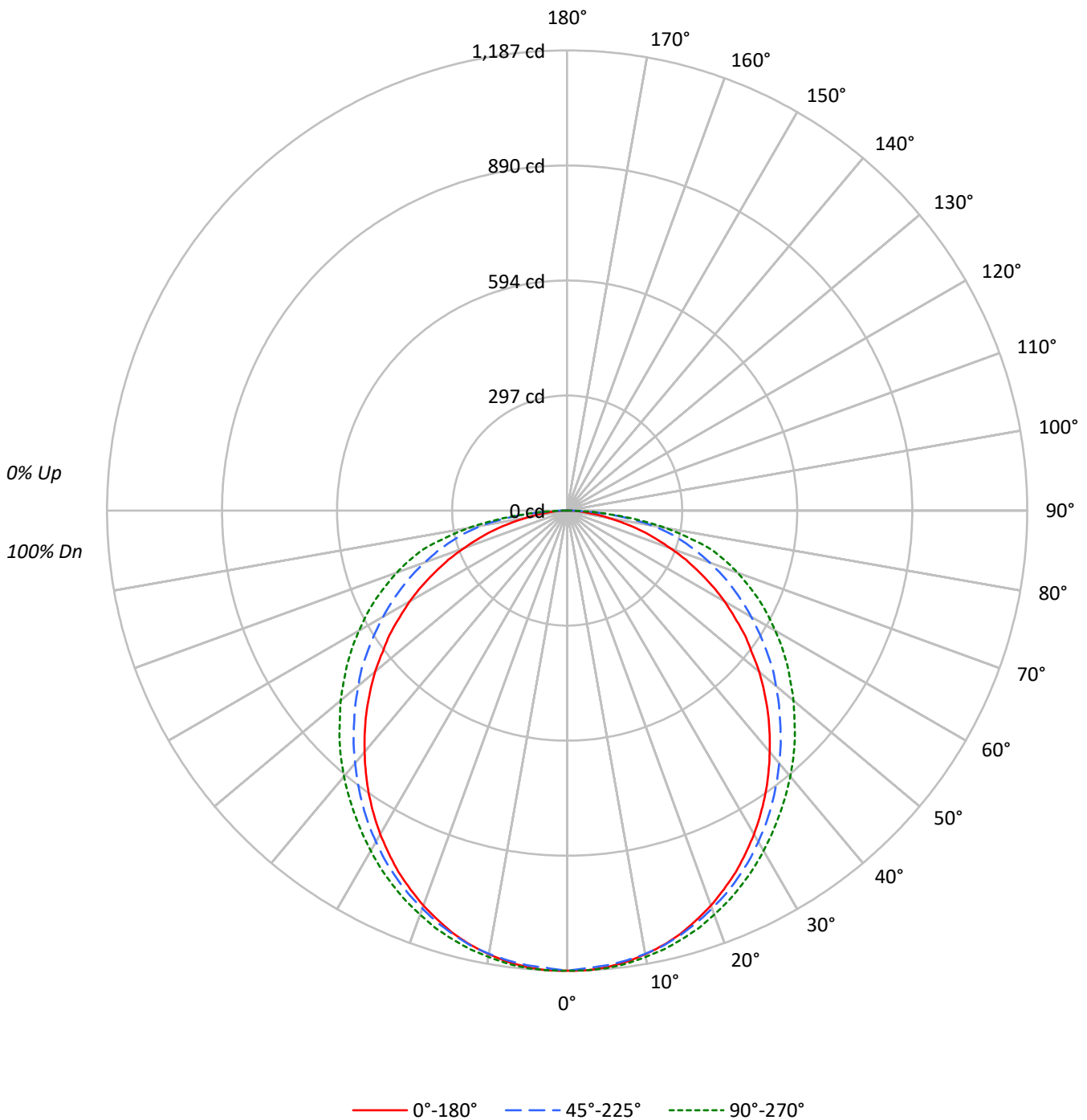
Input Watts (W): 28.272  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276060

CATALOG NUMBER: 24CZ2-40HE-UNV-L82765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P276060

CATALOG NUMBER: 24CZ2-40HE-UNV-L82765-W2A1-U-2700K

**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°	1597	1597	1597
5°	1597	1590	1600
10°	1588	1586	1597
15°	1574	1578	1594
20°	1553	1564	1588
25°	1527	1550	1582
30°	1498	1533	1575
35°	1465	1514	1570
40°	1428	1494	1573
45°	1392	1479	1580
50°	1353	1472	1595
55°	1312	1470	1625
60°	1260	1476	1667
65°	1195	1499	1739
70°	1109	1536	1838
75°	1012	1613	1994
80°	832	1737	1993
85°	638	1602	1712



TEST NUMBER: P276060

CATALOG NUMBER: 24CZ2-40HE-UNV-L82765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.3	3.2
10°-20°	320.5	9.1
20°-30°	482.3	13.6
30°-40°	577.9	16.3
40°-50°	602.3	17.0
50°-60°	560.4	15.9
60°-70°	461.5	13.1
70°-80°	314.3	8.9
80°-90°	103.8	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°	915.0	25.9
0°-40°	1493.0	42.2
0°-60°	2655.6	75.1
0°-90°	3535.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3535.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1187	1187	1187	1187	1187	
5°	1182	1182	1178	1183	1185	112
15°	1130	1132	1133	1143	1144	318
25°	1029	1034	1044	1062	1065	474
35°	892	903	922	946	956	558
45°	732	747	778	816	831	564
55°	559	578	626	676	693	499
65°	375	407	471	526	546	372
75°	195	238	310	366	384	205
85°	41	80	104	111	111	51
90°	0	0	0	0	0	



TEST NUMBER: P276060

CATALOG NUMBER: 24CZ2-40HE-UNV-L82765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1186.9	1186.9	1186.9	1186.9	1186.9
2.5°	1186.9	1186.9	1181.0	1186.9	1186.9
5°	1182.2	1182.2	1177.5	1183.4	1184.6
7.5°	1174.0	1175.1	1170.4	1177.5	1178.7
10°	1162.2	1163.3	1161.0	1168.1	1169.2
12.5°	1148.0	1149.2	1149.2	1157.4	1158.6
15°	1130.3	1131.5	1132.7	1143.3	1144.5
17.5°	1107.9	1111.4	1113.8	1126.8	1129.1
20°	1084.3	1087.8	1092.5	1106.7	1109.1
22.5°	1057.1	1061.9	1070.1	1085.5	1089.0
25°	1028.8	1033.6	1044.2	1061.9	1065.4
27.5°	997.0	1004.1	1017.0	1035.9	1040.6
30°	963.9	971.0	986.4	1006.4	1013.5
32.5°	928.5	938.0	955.7	978.1	985.2
35°	892.0	902.6	921.5	946.2	955.7
37.5°	853.0	864.8	887.2	914.4	926.2
40°	812.9	827.1	850.7	882.5	895.5
42.5°	772.8	785.8	815.3	849.5	863.7
45°	731.5	746.8	777.5	816.5	830.6
47.5°	689.0	704.4	740.9	782.2	795.2
50°	646.6	661.9	703.2	746.8	762.2
52.5°	600.5	620.6	667.8	711.5	726.8
55°	559.3	578.1	626.5	676.1	692.6
57.5°	512.1	534.5	587.6	639.5	657.2
60°	468.4	492.0	548.6	601.7	619.4
62.5°	423.6	449.5	509.7	564.0	584.0
65°	375.2	407.0	470.8	526.2	546.3
67.5°	331.5	364.6	431.8	488.5	506.2
70°	282.0	322.1	390.5	447.2	467.2
72.5°	239.5	279.6	351.6	407.0	427.1
75°	194.7	238.3	310.3	365.8	383.5
77.5°	149.8	198.2	270.2	312.7	318.6
80°	107.4	158.1	224.2	248.9	257.2
82.5°	75.5	121.5	165.2	181.7	186.4
85°	41.3	80.2	103.8	110.9	110.9
87.5°	17.7	34.2	41.3	42.5	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)