

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: P276159

Luminaire Tested: **24CZ2-45-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276159  
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: 24CZ2-45-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3934.4 lumens  
Efficiency: N/A  
Efficacy: 112.5 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

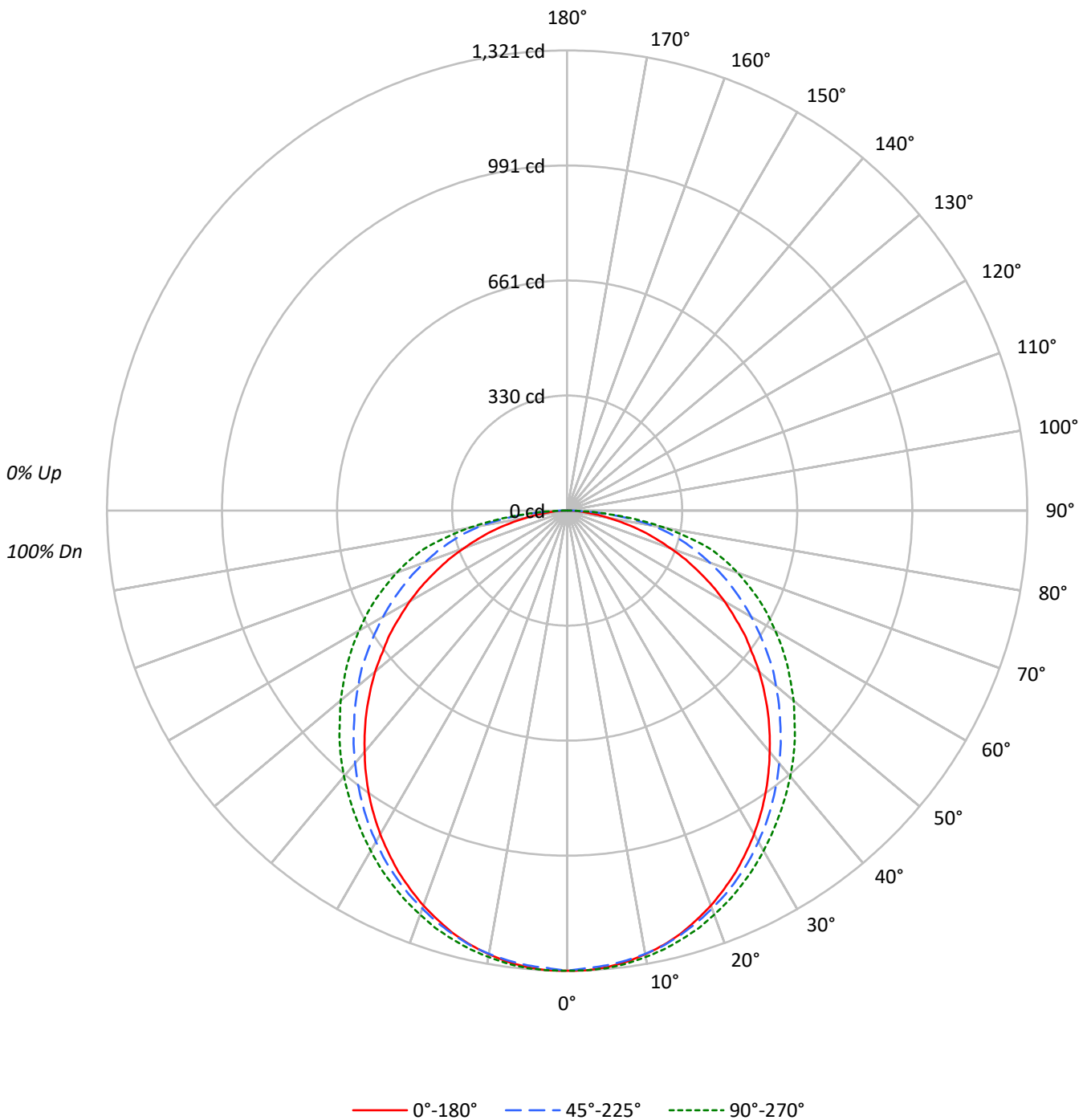
Input Watts (W): 34.968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56					56			
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

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

	0°	45°	90°
0°	1777	1777	1777
5°	1777	1770	1781
10°	1767	1765	1778
15°	1752	1756	1774
20°	1728	1741	1767
25°	1700	1725	1760
30°	1667	1705	1752
35°	1631	1684	1747
40°	1589	1663	1750
45°	1549	1647	1759
50°	1506	1638	1776
55°	1460	1635	1808
60°	1403	1643	1855
65°	1330	1668	1936
70°	1234	1710	2046
75°	1127	1795	2219
80°	926	1933	2218
85°	710	1785	1905



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.9	3.2
10°-20°	356.7	9.1
20°-30°	536.7	13.6
30°-40°	643.2	16.3
40°-50°	670.3	17.0
50°-60°	623.6	15.9
60°-70°	513.6	13.1
70°-80°	349.8	8.9
80°-90°	115.5	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°	1018.3	25.9
0°-40°	1661.5	42.2
0°-60°	2955.5	75.1
0°-90°	3934.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3934.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1321	1321	1321	1321	1321	
5°	1316	1316	1310	1317	1318	125
15°	1258	1259	1261	1272	1274	354
25°	1145	1150	1162	1182	1186	527
35°	993	1004	1026	1053	1064	621
45°	814	831	865	909	924	628
55°	622	643	697	752	771	555
65°	418	453	524	586	608	414
75°	217	265	345	407	427	228
85°	46	89	116	123	123	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1321.0	1321.0	1321.0	1321.0	1321.0
2.5°	1321.0	1321.0	1314.4	1321.0	1321.0
5°	1315.7	1315.7	1310.5	1317.0	1318.3
7.5°	1306.5	1307.8	1302.6	1310.5	1311.8
10°	1293.4	1294.7	1292.1	1300.0	1301.3
12.5°	1277.6	1278.9	1278.9	1288.1	1289.5
15°	1257.9	1259.3	1260.6	1272.4	1273.7
17.5°	1233.0	1236.9	1239.6	1254.0	1256.6
20°	1206.7	1210.7	1215.9	1231.7	1234.3
22.5°	1176.5	1181.8	1191.0	1208.0	1212.0
25°	1145.0	1150.3	1162.1	1181.8	1185.7
27.5°	1109.6	1117.4	1131.9	1152.9	1158.1
30°	1072.8	1080.7	1097.7	1120.1	1127.9
32.5°	1033.4	1043.9	1063.6	1088.5	1096.4
35°	992.7	1004.5	1025.5	1053.1	1063.6
37.5°	949.4	962.5	987.4	1017.6	1030.8
40°	904.7	920.5	946.7	982.2	996.6
42.5°	860.1	874.5	907.3	945.4	961.2
45°	814.1	831.2	865.3	908.7	924.4
47.5°	766.8	783.9	824.6	870.6	885.0
50°	719.6	736.6	782.6	831.2	848.3
52.5°	668.4	690.7	743.2	791.8	808.9
55°	622.4	643.4	697.2	752.4	770.8
57.5°	569.9	594.8	653.9	711.7	731.4
60°	521.3	547.6	610.6	669.7	689.4
62.5°	471.4	500.3	567.3	627.7	650.0
65°	417.6	453.0	523.9	585.6	608.0
67.5°	369.0	405.7	480.6	543.6	563.3
70°	313.8	358.5	434.6	497.7	520.0
72.5°	266.6	311.2	391.3	453.0	475.3
75°	216.7	265.2	345.3	407.1	426.8
77.5°	166.8	220.6	300.7	348.0	354.5
80°	119.5	176.0	249.5	277.1	286.3
82.5°	84.0	135.2	183.8	202.2	207.5
85°	46.0	89.3	115.6	123.4	123.4
87.5°	19.7	38.1	46.0	47.3	48.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)