

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: P275958

Luminaire Tested: **24CZ2-45-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275958  
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-L83050-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4287.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 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

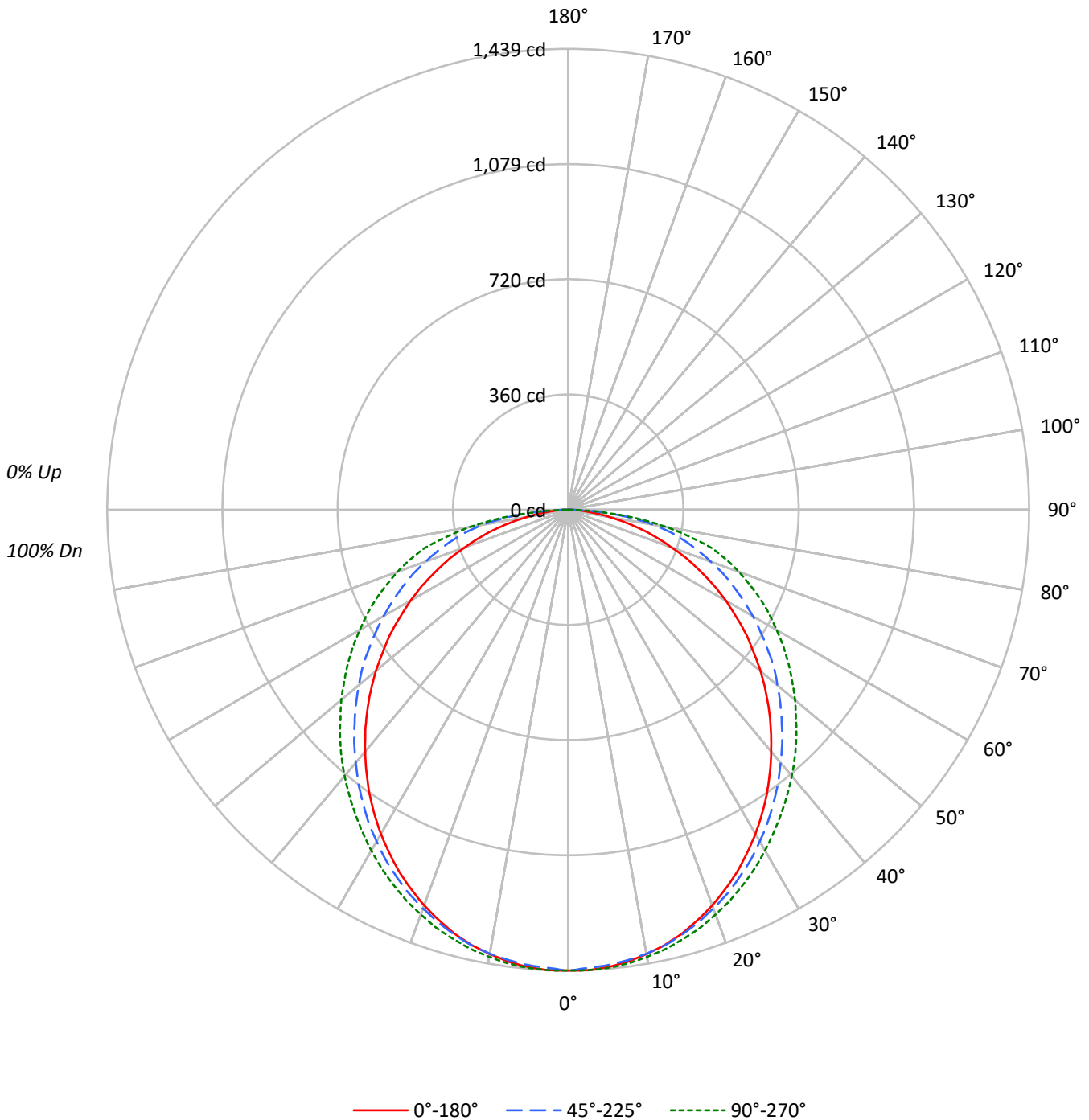
Input Watts (W): 34.968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P275958

CATALOG NUMBER: 24CZ2-45-UNV-L83050-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P275958

CATALOG NUMBER: 24CZ2-45-UNV-L83050-W2A1-U-3500K

**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°	1937	1937	1937
5°	1936	1929	1940
10°	1925	1924	1937
15°	1909	1913	1933
20°	1883	1897	1926
25°	1852	1880	1918
30°	1816	1858	1909
35°	1777	1835	1904
40°	1731	1812	1907
45°	1688	1794	1917
50°	1641	1785	1935
55°	1591	1782	1970
60°	1528	1790	2021
65°	1449	1818	2109
70°	1345	1863	2229
75°	1227	1956	2417
80°	1009	2106	2417
85°	773	1944	2076



TEST NUMBER: P275958

CATALOG NUMBER: 24CZ2-45-UNV-L83050-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.1	3.2
10°-20°	388.6	9.1
20°-30°	584.8	13.6
30°-40°	700.8	16.3
40°-50°	730.4	17.0
50°-60°	679.5	15.9
60°-70°	559.7	13.1
70°-80°	381.2	8.9
80°-90°	125.8	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°	1109.6	25.9
0°-40°	1810.4	42.2
0°-60°	3220.3	75.1
0°-90°	4287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4287.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1439	1439	1439	1439	1439	
5°	1434	1434	1428	1435	1436	136
15°	1371	1372	1374	1386	1388	386
25°	1248	1253	1266	1288	1292	574
35°	1082	1094	1117	1148	1159	676
45°	887	906	943	990	1007	684
55°	678	701	760	820	840	605
65°	455	494	571	638	662	452
75°	236	289	376	444	465	249
85°	50	97	126	134	134	62
90°	0	0	0	0	0	



TEST NUMBER: P275958

CATALOG NUMBER: 24CZ2-45-UNV-L83050-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1439.3	1439.3	1439.3	1439.3	1439.3
2.5°	1439.3	1439.3	1432.2	1439.3	1439.3
5°	1433.6	1433.6	1427.9	1435.1	1436.5
7.5°	1423.6	1425.0	1419.3	1427.9	1429.3
10°	1409.3	1410.7	1407.9	1416.5	1417.9
12.5°	1392.1	1393.6	1393.6	1403.6	1405.0
15°	1370.7	1372.1	1373.5	1386.4	1387.8
17.5°	1343.5	1347.8	1350.6	1366.4	1369.2
20°	1314.9	1319.2	1324.9	1342.1	1344.9
22.5°	1282.0	1287.7	1297.7	1316.3	1320.6
25°	1247.6	1253.3	1266.2	1287.7	1292.0
27.5°	1209.0	1217.6	1233.3	1256.2	1261.9
30°	1168.9	1177.5	1196.1	1220.4	1229.0
32.5°	1126.0	1137.5	1158.9	1186.1	1194.7
35°	1081.7	1094.5	1117.4	1147.5	1158.9
37.5°	1034.4	1048.7	1075.9	1108.8	1123.1
40°	985.8	1003.0	1031.6	1070.2	1085.9
42.5°	937.1	952.9	988.7	1030.1	1047.3
45°	887.1	905.7	942.9	990.1	1007.3
47.5°	835.6	854.2	898.5	948.6	964.3
50°	784.1	802.7	852.7	905.7	924.3
52.5°	728.3	752.6	809.8	862.7	881.3
55°	678.2	701.1	759.7	819.8	839.9
57.5°	621.0	648.1	712.5	775.5	796.9
60°	568.0	596.6	665.3	729.7	751.1
62.5°	513.6	545.1	618.1	683.9	708.2
65°	455.0	493.6	570.9	638.1	662.4
67.5°	402.0	442.1	523.7	592.3	613.8
70°	342.0	390.6	473.6	542.3	566.6
72.5°	290.4	339.1	426.4	493.6	517.9
75°	236.1	289.0	376.3	443.5	465.0
77.5°	181.7	240.4	327.6	379.2	386.3
80°	130.2	191.7	271.8	301.9	311.9
82.5°	91.6	147.4	200.3	220.3	226.1
85°	50.1	97.3	125.9	134.5	134.5
87.5°	21.5	41.5	50.1	51.5	52.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)