

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: P260819

Luminaire Tested: **24CZ-LD5-45SE-UNV-L82765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260819  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45SE-UNV-L82765-W2A1-U-2700K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4159.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

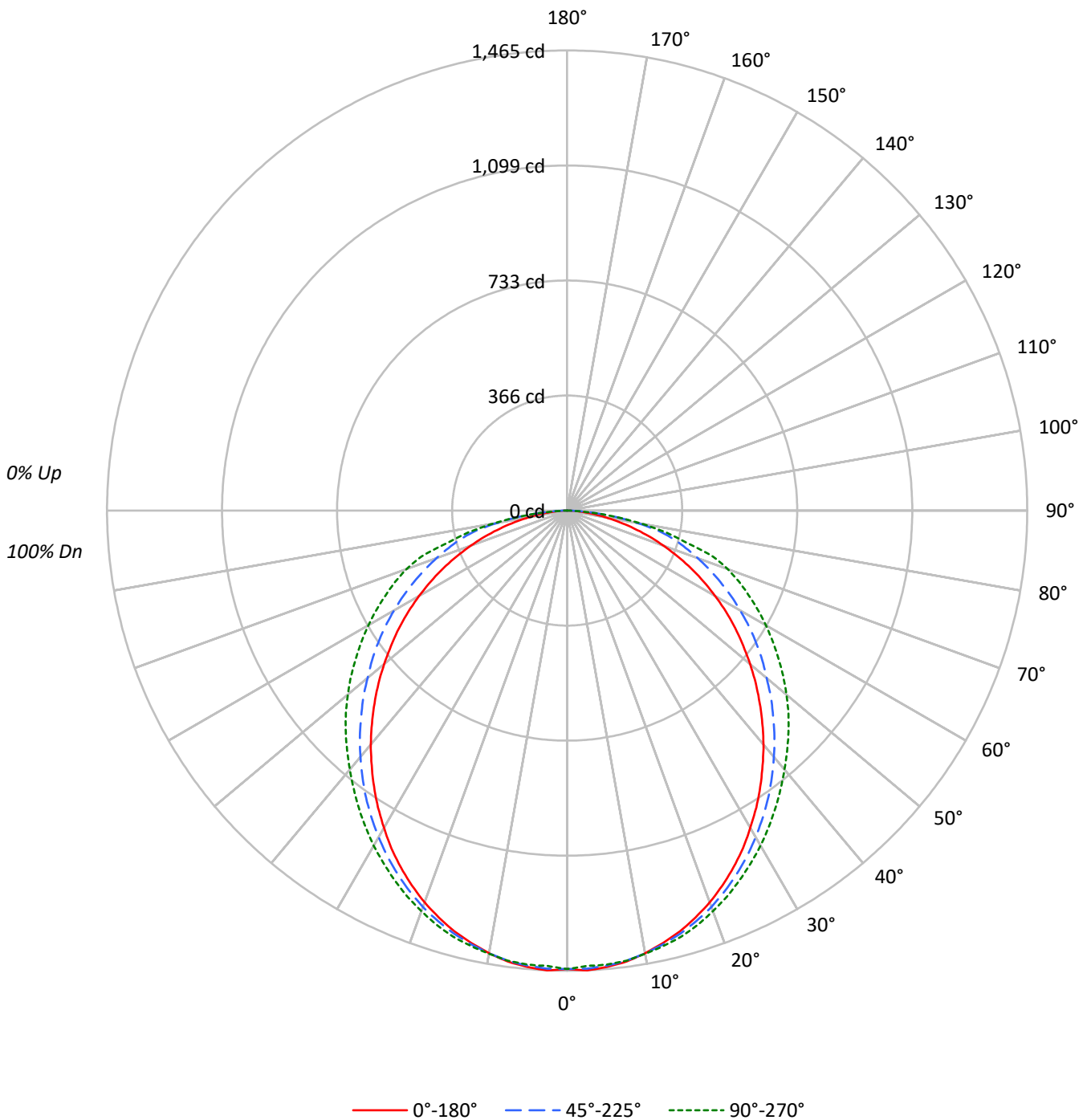
Input Watts (W): 34.968  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P260819

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L82765-W2A1-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P260819

CATALOG NUMBER: 24CZ-LD5-45SE-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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	1964	1964	1964
5°	1969	1964	1960
10°	1955	1955	1957
15°	1932	1942	1956
20°	1900	1923	1943
25°	1860	1896	1928
30°	1812	1865	1914
35°	1761	1834	1899
40°	1708	1798	1891
45°	1650	1764	1897
50°	1592	1735	1908
55°	1533	1724	1927
60°	1464	1713	1966
65°	1387	1714	2031
70°	1283	1742	2140
75°	1147	1821	2036
80°	960	1743	1865
85°	726	1342	1275



TEST NUMBER: P260819

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L82765-W2A1-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.9	3.3
10°-20°	392.6	9.4
20°-30°	586.8	14.1
30°-40°	696.2	16.7
40°-50°	716.6	17.2
50°-60°	657.3	15.8
60°-70°	531.5	12.8
70°-80°	344.9	8.3
80°-90°	95.1	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°	1117.3	26.9
0°-40°	1813.5	43.6
0°-60°	3187.4	76.6
0°-90°	4159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4159.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1458	1448	1454	1452	1451	138
15°	1387	1381	1394	1400	1404	391
25°	1253	1254	1277	1289	1299	577
35°	1072	1081	1116	1141	1156	671
45°	867	882	927	971	997	669
55°	654	674	735	795	822	584
65°	436	461	538	610	638	431
75°	221	262	350	392	392	235
85°	47	80	87	84	83	58
90°	0	0	0	0	0	



TEST NUMBER: P260819

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L82765-W2A1-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1459.6	1459.6	1459.6	1459.6	1459.6
2.5°	1465.3	1453.9	1459.6	1458.2	1451.0
5°	1458.2	1448.2	1453.9	1452.5	1451.0
7.5°	1448.2	1438.2	1445.4	1443.9	1445.4
10°	1431.1	1422.6	1431.1	1432.5	1432.5
12.5°	1409.8	1402.6	1414.0	1416.9	1419.7
15°	1387.0	1381.3	1394.1	1399.8	1404.1
17.5°	1358.5	1354.2	1369.9	1377.0	1382.7
20°	1327.2	1325.7	1342.8	1349.9	1357.1
22.5°	1291.6	1291.6	1311.5	1320.0	1330.0
25°	1253.1	1254.5	1277.3	1288.7	1298.7
27.5°	1211.8	1213.2	1240.3	1254.5	1265.9
30°	1166.3	1171.9	1200.4	1218.9	1231.8
32.5°	1120.7	1127.8	1159.1	1180.5	1194.7
35°	1072.3	1080.8	1116.4	1140.6	1156.3
37.5°	1022.4	1032.4	1070.8	1097.9	1116.4
40°	972.6	984.0	1023.9	1055.2	1076.5
42.5°	919.9	932.7	976.9	1013.9	1036.7
45°	867.2	881.5	927.0	971.2	996.8
47.5°	814.5	831.6	880.0	928.4	955.5
50°	760.4	777.5	828.8	884.3	911.4
52.5°	706.3	726.2	783.2	840.2	867.2
55°	653.6	673.5	734.8	794.6	821.6
57.5°	599.5	619.4	686.4	749.0	776.1
60°	544.0	566.7	636.5	700.6	730.5
62.5°	489.9	514.1	588.1	656.5	684.9
65°	435.7	461.4	538.3	609.5	637.9
67.5°	380.2	410.1	489.9	562.5	592.4
70°	326.1	358.8	442.9	515.5	544.0
72.5°	273.4	309.0	395.9	469.9	487.0
75°	220.7	262.0	350.3	391.6	391.6
77.5°	170.9	216.4	299.0	314.7	323.2
80°	123.9	173.7	225.0	243.5	240.7
82.5°	82.6	132.4	160.9	160.9	156.6
85°	47.0	79.7	86.9	84.0	82.6
87.5°	19.9	29.9	27.1	21.4	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)