

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: P260958

Luminaire Tested: **24CZ-LD5-45SE-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260958  
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-L92765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4106.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 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

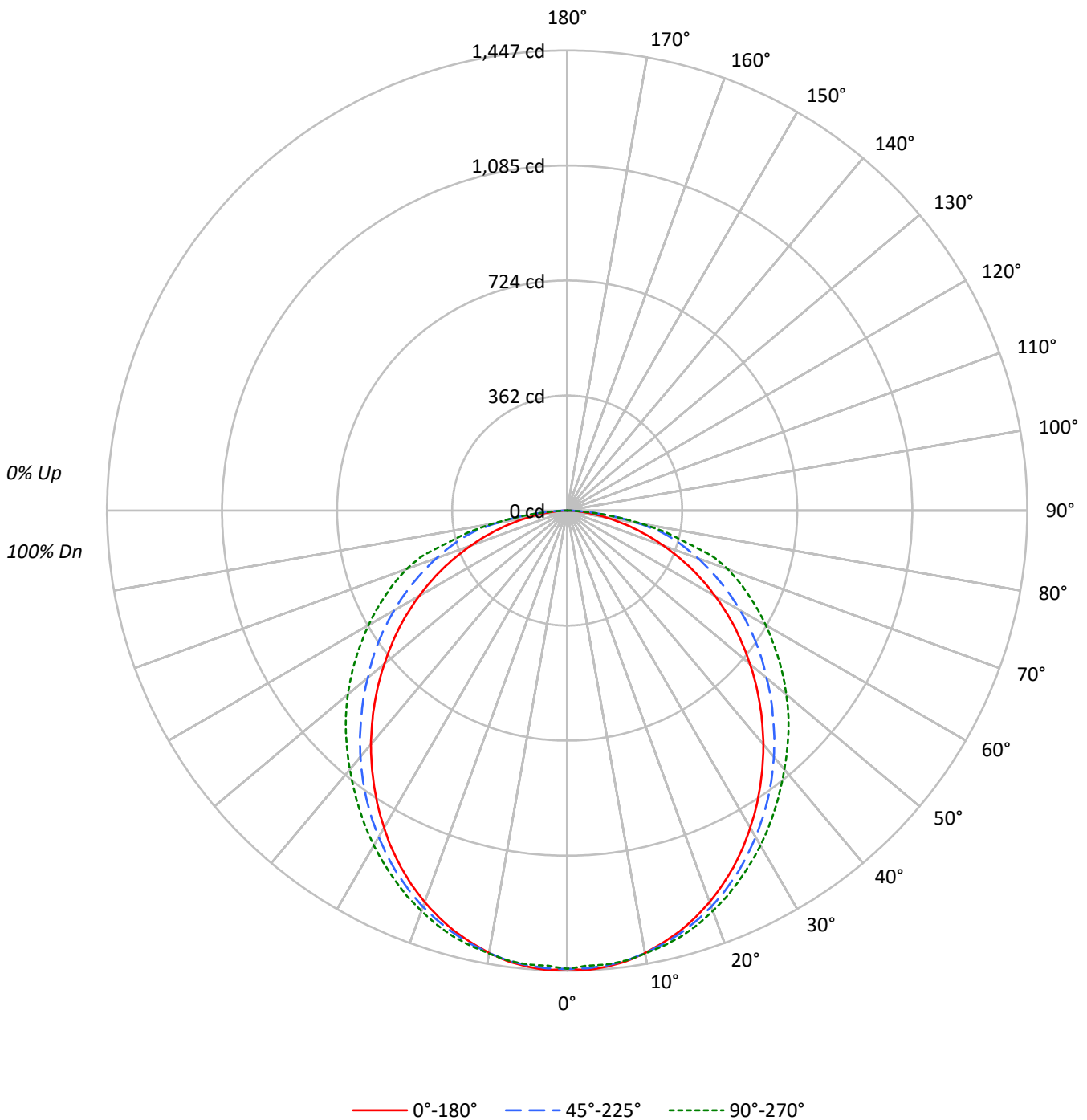
Input Watts (W): 35.619  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P260958

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L92765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P260958

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L92765-W2A1-U-4500K

**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°	1939	1939	1939
5°	1944	1939	1935
10°	1930	1930	1932
15°	1907	1917	1931
20°	1876	1898	1918
25°	1837	1872	1903
30°	1789	1841	1889
35°	1739	1810	1875
40°	1687	1775	1867
45°	1629	1741	1873
50°	1571	1713	1883
55°	1514	1702	1903
60°	1445	1691	1941
65°	1370	1692	2005
70°	1266	1720	2113
75°	1133	1798	2010
80°	948	1721	1841
85°	716	1325	1258



TEST NUMBER: P260958

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L92765-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.2	3.3
10°-20°	387.6	9.4
20°-30°	579.4	14.1
30°-40°	687.3	16.7
40°-50°	707.4	17.2
50°-60°	649.0	15.8
60°-70°	524.7	12.8
70°-80°	340.5	8.3
80°-90°	93.9	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°	1103.1	26.9
0°-40°	1790.4	43.6
0°-60°	3146.8	76.6
0°-90°	4106.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4106.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1440	1430	1435	1434	1433	137
15°	1369	1364	1376	1382	1386	386
25°	1237	1239	1261	1272	1282	569
35°	1059	1067	1102	1126	1142	662
45°	856	870	915	959	984	661
55°	645	665	725	784	811	576
65°	430	456	531	602	630	425
75°	218	259	346	387	387	232
85°	46	79	86	83	82	57
90°	0	0	0	0	0	



TEST NUMBER: P260958

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L92765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1441.0	1441.0	1441.0	1441.0	1441.0
2.5°	1446.6	1435.4	1441.0	1439.6	1432.6
5°	1439.6	1429.7	1435.4	1434.0	1432.6
7.5°	1429.7	1419.9	1426.9	1425.5	1426.9
10°	1412.9	1404.4	1412.9	1414.3	1414.3
12.5°	1391.8	1384.8	1396.0	1398.8	1401.6
15°	1369.3	1363.7	1376.3	1381.9	1386.2
17.5°	1341.2	1337.0	1352.4	1359.5	1365.1
20°	1310.2	1308.8	1325.7	1332.7	1339.8
22.5°	1275.1	1275.1	1294.8	1303.2	1313.1
25°	1237.1	1238.6	1261.0	1272.3	1282.1
27.5°	1196.4	1197.8	1224.5	1238.6	1249.8
30°	1151.4	1157.0	1185.1	1203.4	1216.1
32.5°	1106.4	1113.4	1144.4	1165.4	1179.5
35°	1058.6	1067.0	1102.2	1126.1	1141.5
37.5°	1009.4	1019.2	1057.2	1083.9	1102.2
40°	960.2	971.4	1010.8	1041.7	1062.8
42.5°	908.2	920.8	964.4	1001.0	1023.5
45°	856.2	870.2	915.2	958.8	984.1
47.5°	804.1	821.0	868.8	916.6	943.3
50°	750.7	767.6	818.2	873.0	899.7
52.5°	697.3	717.0	773.2	829.4	856.2
55°	645.3	665.0	725.4	784.5	811.2
57.5°	591.9	611.5	677.6	739.5	766.2
60°	537.0	559.5	628.4	691.7	721.2
62.5°	483.6	507.5	580.6	648.1	676.2
65°	430.2	455.5	531.4	601.7	629.8
67.5°	375.4	404.9	483.6	555.3	584.8
70°	321.9	354.3	437.2	508.9	537.0
72.5°	269.9	305.1	390.8	463.9	480.8
75°	217.9	258.7	345.8	386.6	386.6
77.5°	168.7	213.7	295.2	310.7	319.1
80°	122.3	171.5	222.1	240.4	237.6
82.5°	81.5	130.7	158.9	158.9	154.6
85°	46.4	78.7	85.8	82.9	81.5
87.5°	19.7	29.5	26.7	21.1	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)