

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: P260620

Luminaire Tested: **24CZ-LD5-45SE-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260620  
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-L83050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4804.0 lumens  
Efficiency: N/A  
Efficacy: 131.0 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

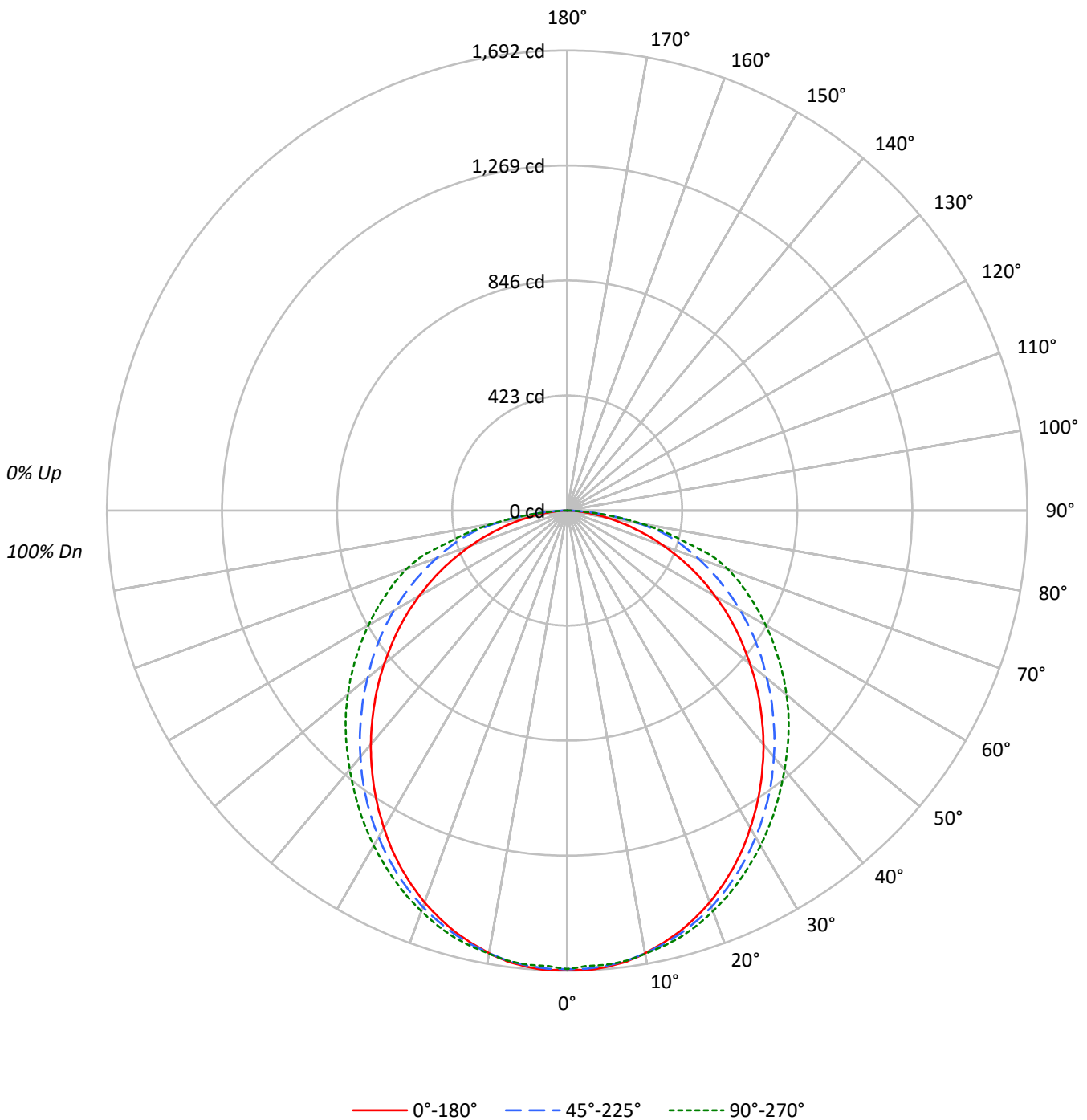
Input Watts (W): 36.681432  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P260620

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L83050-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P260620

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L83050-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°	2268	2268	2268
5°	2275	2268	2264
10°	2259	2259	2261
15°	2232	2243	2259
20°	2195	2221	2244
25°	2149	2190	2227
30°	2093	2154	2211
35°	2034	2118	2194
40°	1973	2077	2184
45°	1906	2038	2191
50°	1838	2004	2204
55°	1771	1991	2226
60°	1691	1978	2271
65°	1602	1979	2346
70°	1482	2012	2472
75°	1325	2103	2351
80°	1109	2014	2154
85°	838	1548	1473



TEST NUMBER: P260620

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L83050-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.3	3.3
10°-20°	453.4	9.4
20°-30°	677.9	14.1
30°-40°	804.2	16.7
40°-50°	827.7	17.2
50°-60°	759.3	15.8
60°-70°	613.9	12.8
70°-80°	398.4	8.3
80°-90°	109.9	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°	1290.6	26.9
0°-40°	2094.8	43.6
0°-60°	3681.8	76.6
0°-90°	4804.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4804.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1686	1686	1686	1686	1686	
5°	1684	1673	1679	1678	1676	160
15°	1602	1596	1610	1617	1622	451
25°	1448	1449	1475	1489	1500	666
35°	1239	1248	1290	1318	1336	775
45°	1002	1018	1071	1122	1151	773
55°	755	778	849	918	949	674
65°	503	533	622	704	737	497
75°	255	303	405	452	452	271
85°	54	92	100	97	95	66
90°	0	0	0	0	0	



TEST NUMBER: P260620

CATALOG NUMBER: 24CZ-LD5-45SE-UNV-L83050-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1686.0	1686.0	1686.0	1686.0	1686.0
2.5°	1692.5	1679.4	1686.0	1684.3	1676.1
5°	1684.3	1672.8	1679.4	1677.7	1676.1
7.5°	1672.8	1661.3	1669.5	1667.9	1669.5
10°	1653.1	1643.2	1653.1	1654.7	1654.7
12.5°	1628.4	1620.2	1633.3	1636.6	1639.9
15°	1602.1	1595.5	1610.3	1616.9	1621.8
17.5°	1569.2	1564.2	1582.3	1590.6	1597.1
20°	1533.0	1531.3	1551.1	1559.3	1567.5
22.5°	1491.9	1491.9	1514.9	1524.8	1536.3
25°	1447.5	1449.1	1475.4	1488.6	1500.1
27.5°	1399.8	1401.4	1432.6	1449.1	1462.3
30°	1347.1	1353.7	1386.6	1408.0	1422.8
32.5°	1294.5	1302.7	1338.9	1363.6	1380.0
35°	1238.6	1248.4	1289.5	1317.5	1335.6
37.5°	1181.0	1192.5	1236.9	1268.2	1289.5
40°	1123.4	1136.6	1182.6	1218.8	1243.5
42.5°	1062.6	1077.4	1128.4	1171.1	1197.4
45°	1001.7	1018.2	1070.8	1121.8	1151.4
47.5°	940.8	960.6	1016.5	1072.4	1103.7
50°	878.3	898.1	957.3	1021.4	1052.7
52.5°	815.8	838.9	904.7	970.5	1001.7
55°	755.0	778.0	848.7	917.8	949.1
57.5°	692.5	715.5	792.8	865.2	896.4
60°	628.3	654.6	735.2	809.3	843.8
62.5°	565.8	593.8	679.3	758.3	791.2
65°	503.3	532.9	621.7	704.0	736.9
67.5°	439.2	473.7	565.8	649.7	684.3
70°	376.7	414.5	511.5	595.4	628.3
72.5°	315.8	356.9	457.3	542.8	562.5
75°	254.9	302.6	404.6	452.3	452.3
77.5°	197.4	250.0	345.4	363.5	373.4
80°	143.1	200.7	259.9	281.3	278.0
82.5°	95.4	153.0	185.9	185.9	180.9
85°	54.3	92.1	100.3	97.0	95.4
87.5°	23.0	34.5	31.3	24.7	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)