

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: P276219

Luminaire Tested: **24CZ2-50HE-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276219  
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: 24CZ2-50HE-UNV-L92765-W2A1-U-5500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4463.2 lumens  
Efficiency: N/A  
Efficacy: 121.5 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

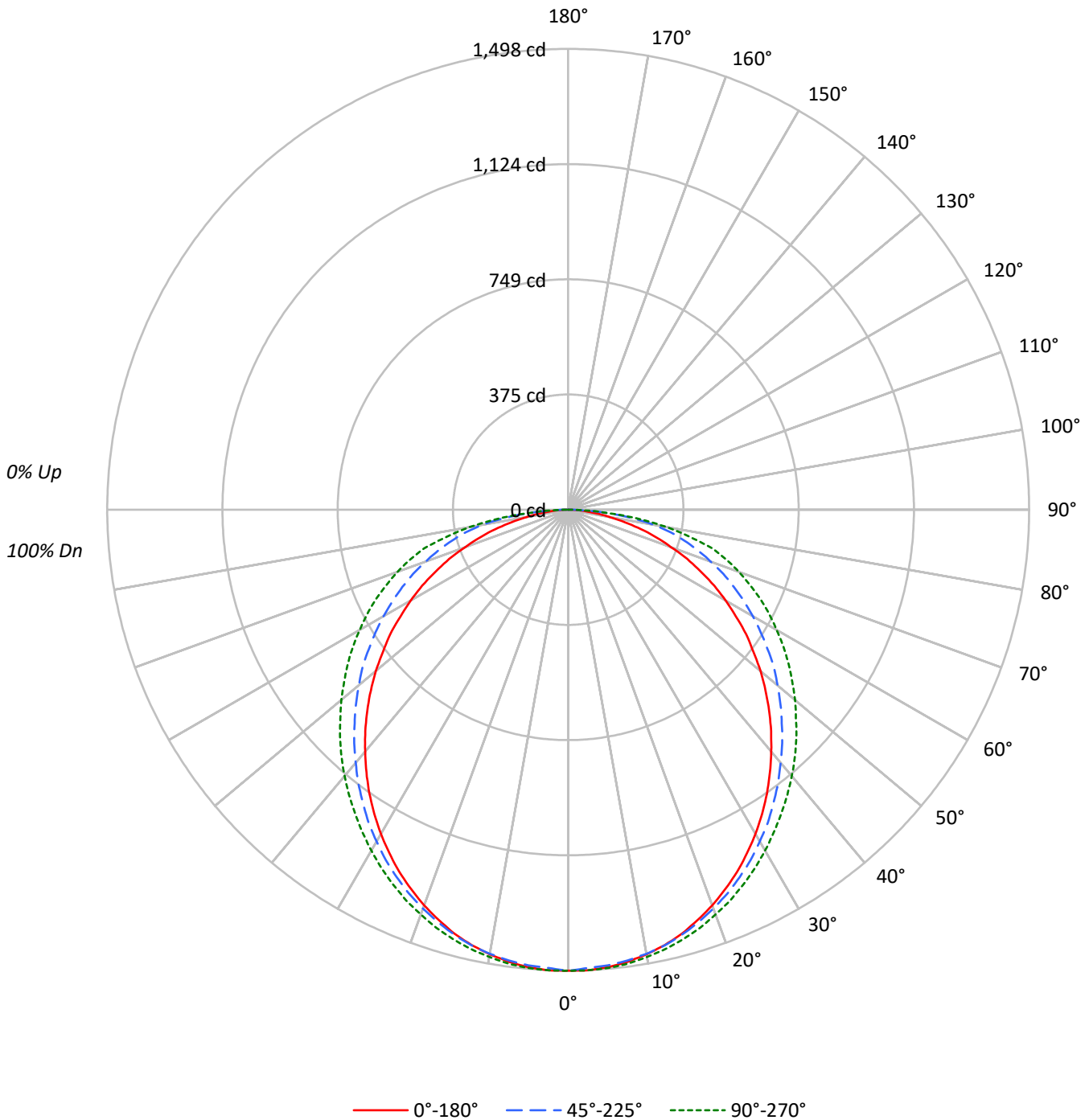
Input Watts (W): 36.735  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276219

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276219

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-5500K

**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°	2016	2016	2016
5°	2016	2008	2020
10°	2005	2003	2017
15°	1988	1992	2013
20°	1960	1975	2005
25°	1928	1957	1997
30°	1891	1935	1988
35°	1850	1911	1982
40°	1803	1886	1986
45°	1757	1868	1995
50°	1709	1858	2014
55°	1656	1856	2051
60°	1591	1864	2104
65°	1508	1892	2196
70°	1400	1939	2321
75°	1278	2037	2517
80°	1051	2193	2516
85°	804	2024	2161



TEST NUMBER: P276219

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.7	3.2
10°-20°	404.6	9.1
20°-30°	608.9	13.6
30°-40°	729.7	16.3
40°-50°	760.4	17.0
50°-60°	707.5	15.9
60°-70°	582.7	13.1
70°-80°	396.8	8.9
80°-90°	131.0	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°	1155.2	25.9
0°-40°	1884.9	42.2
0°-60°	3352.7	75.1
0°-90°	4463.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4463.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1498	1498	1498	1498	1498	
5°	1493	1493	1487	1494	1496	142
15°	1427	1428	1430	1443	1445	402
25°	1299	1305	1318	1341	1345	598
35°	1126	1140	1163	1195	1207	704
45°	924	943	982	1031	1049	712
55°	706	730	791	854	874	629
65°	474	514	594	664	690	470
75°	246	301	392	462	484	259
85°	52	101	131	140	140	65
90°	0	0	0	0	0	



TEST NUMBER: P276219

CATALOG NUMBER: 24CZ2-50HE-UNV-L92765-W2A1-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1498.5	1498.5	1498.5	1498.5	1498.5
2.5°	1498.5	1498.5	1491.1	1498.5	1498.5
5°	1492.6	1492.6	1486.6	1494.0	1495.5
7.5°	1482.1	1483.6	1477.7	1486.6	1488.1
10°	1467.2	1468.7	1465.7	1474.7	1476.2
12.5°	1449.4	1450.8	1450.8	1461.3	1462.8
15°	1427.0	1428.5	1430.0	1443.4	1444.9
17.5°	1398.7	1403.2	1406.2	1422.5	1425.5
20°	1368.9	1373.4	1379.3	1397.2	1400.2
22.5°	1334.7	1340.6	1351.0	1370.4	1374.9
25°	1298.9	1304.9	1318.3	1340.6	1345.1
27.5°	1258.7	1267.6	1284.0	1307.8	1313.8
30°	1217.0	1225.9	1245.3	1270.6	1279.5
32.5°	1172.3	1184.2	1206.6	1234.9	1243.8
35°	1126.1	1139.5	1163.4	1194.6	1206.6
37.5°	1077.0	1091.9	1120.2	1154.4	1169.3
40°	1026.3	1044.2	1074.0	1114.2	1130.6
42.5°	975.7	992.1	1029.3	1072.5	1090.4
45°	923.5	942.9	981.6	1030.8	1048.7
47.5°	869.9	889.3	935.5	987.6	1004.0
50°	816.3	835.7	887.8	942.9	962.3
52.5°	758.2	783.5	843.1	898.2	917.6
55°	706.1	729.9	791.0	853.5	874.4
57.5°	646.5	674.8	741.8	807.4	829.7
60°	591.4	621.2	692.7	759.7	782.0
62.5°	534.8	567.5	643.5	712.0	737.3
65°	473.7	513.9	594.3	664.4	689.7
67.5°	418.6	460.3	545.2	616.7	639.0
70°	356.0	406.7	493.0	564.5	589.9
72.5°	302.4	353.0	443.9	513.9	539.2
75°	245.8	300.9	391.8	461.8	484.1
77.5°	189.2	250.2	341.1	394.7	402.2
80°	135.6	199.6	283.0	314.3	324.7
82.5°	95.3	153.4	208.5	229.4	235.4
85°	52.1	101.3	131.1	140.0	140.0
87.5°	22.3	43.2	52.1	53.6	55.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)