

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: P276641

Luminaire Tested: **24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4741.4 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

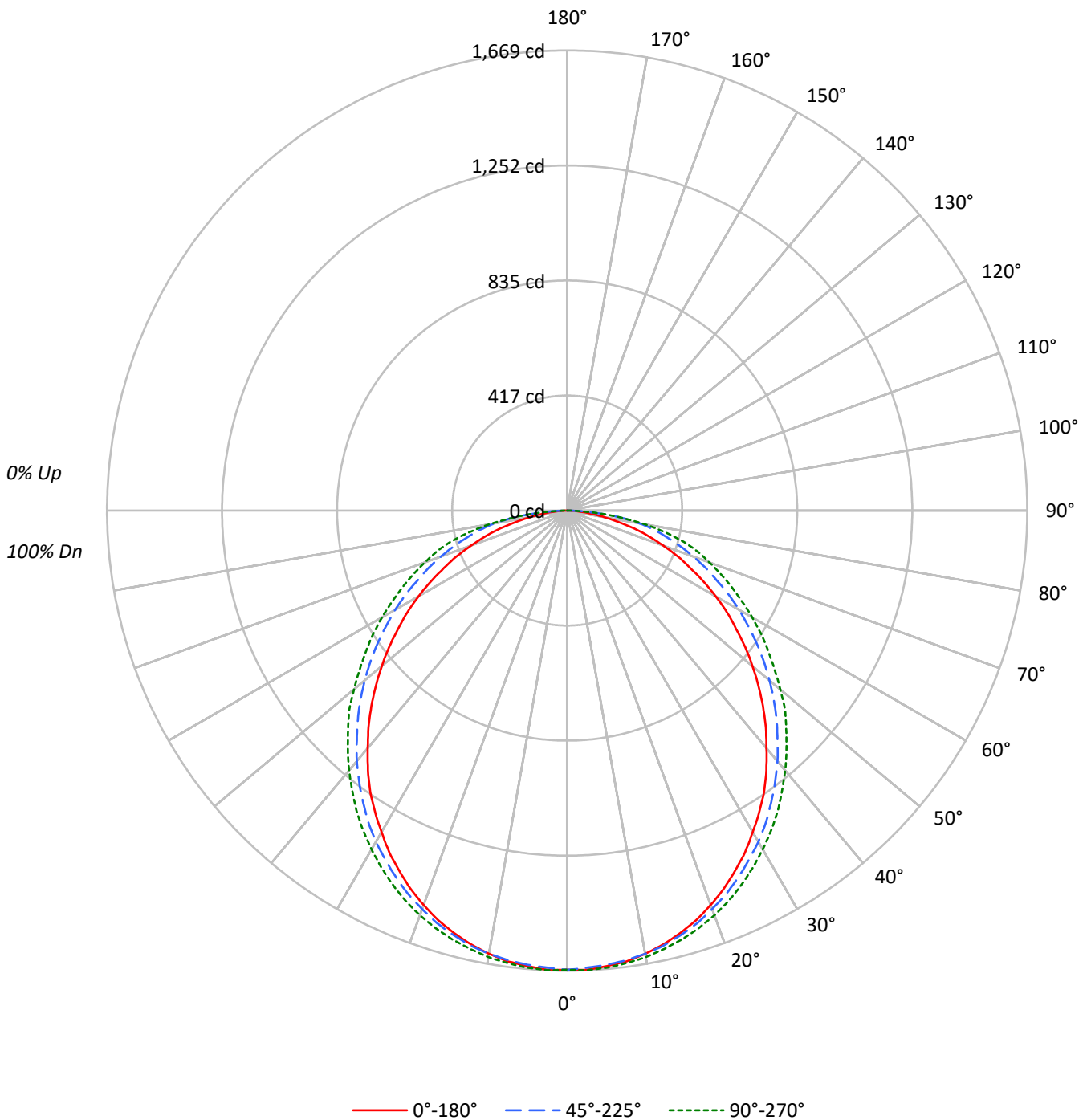
Input Watts (W): 37.386  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276641

CATALOG NUMBER: 24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276641

CATALOG NUMBER: 24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K

**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	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	2241	2241	2241
5°	2239	2233	2248
10°	2230	2230	2247
15°	2209	2220	2243
20°	2180	2202	2236
25°	2140	2180	2222
30°	2092	2155	2204
35°	2046	2120	2187
40°	1976	2085	2161
45°	1911	2043	2138
50°	1838	2005	2112
55°	1756	1968	2092
60°	1674	1937	2087
65°	1568	1904	2100
70°	1452	1913	2157
75°	1300	1949	2279
80°	1050	2066	2229
85°	790	1814	1768



TEST NUMBER: P276641

CATALOG NUMBER: 24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.7	3.3
10°-20°	450.6	9.5
20°-30°	677.3	14.3
30°-40°	806.8	17.0
40°-50°	825.7	17.4
50°-60°	743.4	15.7
60°-70°	583.8	12.3
70°-80°	378.9	8.0
80°-90°	117.2	2.5
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°	1285.6	27.1
0°-40°	2092.4	44.1
0°-60°	3661.5	77.2
0°-90°	4741.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4741.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1658	1661	1654	1663	1664	158
15°	1586	1590	1593	1607	1610	447
25°	1441	1453	1468	1492	1497	664
35°	1246	1260	1291	1322	1331	777
45°	1004	1029	1074	1114	1124	774
55°	748	782	839	882	892	671
65°	492	530	598	648	660	490
75°	250	298	375	426	438	265
85°	51	95	118	114	114	62
90°	0	0	0	0	0	



TEST NUMBER: P276641

CATALOG NUMBER: 24CZ2-50HE-S-UNV-L92765-W2A1-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1665.7	1665.7	1665.7	1665.7	1665.7
2.5°	1667.2	1667.2	1659.6	1667.2	1668.7
5°	1658.1	1661.2	1653.6	1662.7	1664.2
7.5°	1649.1	1649.1	1644.6	1653.6	1655.1
10°	1632.5	1634.0	1632.5	1643.1	1644.6
12.5°	1611.5	1614.5	1616.0	1626.5	1628.0
15°	1585.8	1590.4	1593.4	1606.9	1609.9
17.5°	1557.2	1561.8	1569.3	1584.3	1587.4
20°	1522.6	1528.6	1537.7	1557.2	1561.8
22.5°	1484.9	1491.0	1506.0	1524.1	1531.6
25°	1441.3	1453.3	1468.4	1492.5	1497.0
27.5°	1397.6	1408.1	1427.7	1453.3	1459.3
30°	1346.4	1363.0	1387.1	1412.7	1418.7
32.5°	1296.7	1313.3	1341.9	1369.0	1376.5
35°	1245.5	1260.5	1290.7	1322.3	1331.3
37.5°	1186.8	1206.3	1239.5	1271.1	1280.1
40°	1125.0	1149.1	1186.8	1219.9	1230.4
42.5°	1066.3	1091.9	1129.5	1165.7	1177.7
45°	1004.5	1028.6	1073.8	1114.5	1123.5
47.5°	941.3	968.4	1016.6	1057.2	1072.3
50°	878.0	906.6	957.8	1000.0	1009.0
52.5°	814.8	844.9	899.1	944.3	948.8
55°	748.5	781.6	838.9	882.5	891.6
57.5°	688.3	716.9	778.6	823.8	834.3
60°	622.0	653.6	719.9	762.1	775.6
62.5°	558.7	591.9	661.1	703.3	715.4
65°	492.5	530.1	597.9	647.6	659.6
67.5°	435.2	471.4	543.7	591.9	603.9
70°	369.0	409.6	486.4	536.1	548.2
72.5°	311.7	353.9	430.7	478.9	497.0
75°	250.0	298.2	375.0	426.2	438.3
77.5°	189.8	245.5	323.8	363.0	363.0
80°	135.5	194.3	266.6	284.6	287.7
82.5°	88.9	146.1	197.3	195.8	195.8
85°	51.2	94.9	117.5	114.5	114.5
87.5°	19.6	39.2	42.2	42.2	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)