

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: P276662

Luminaire Tested: **24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K**

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: P276662  
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: 24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5558.4 lumens  
Efficiency: N/A  
Efficacy: 113.4 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

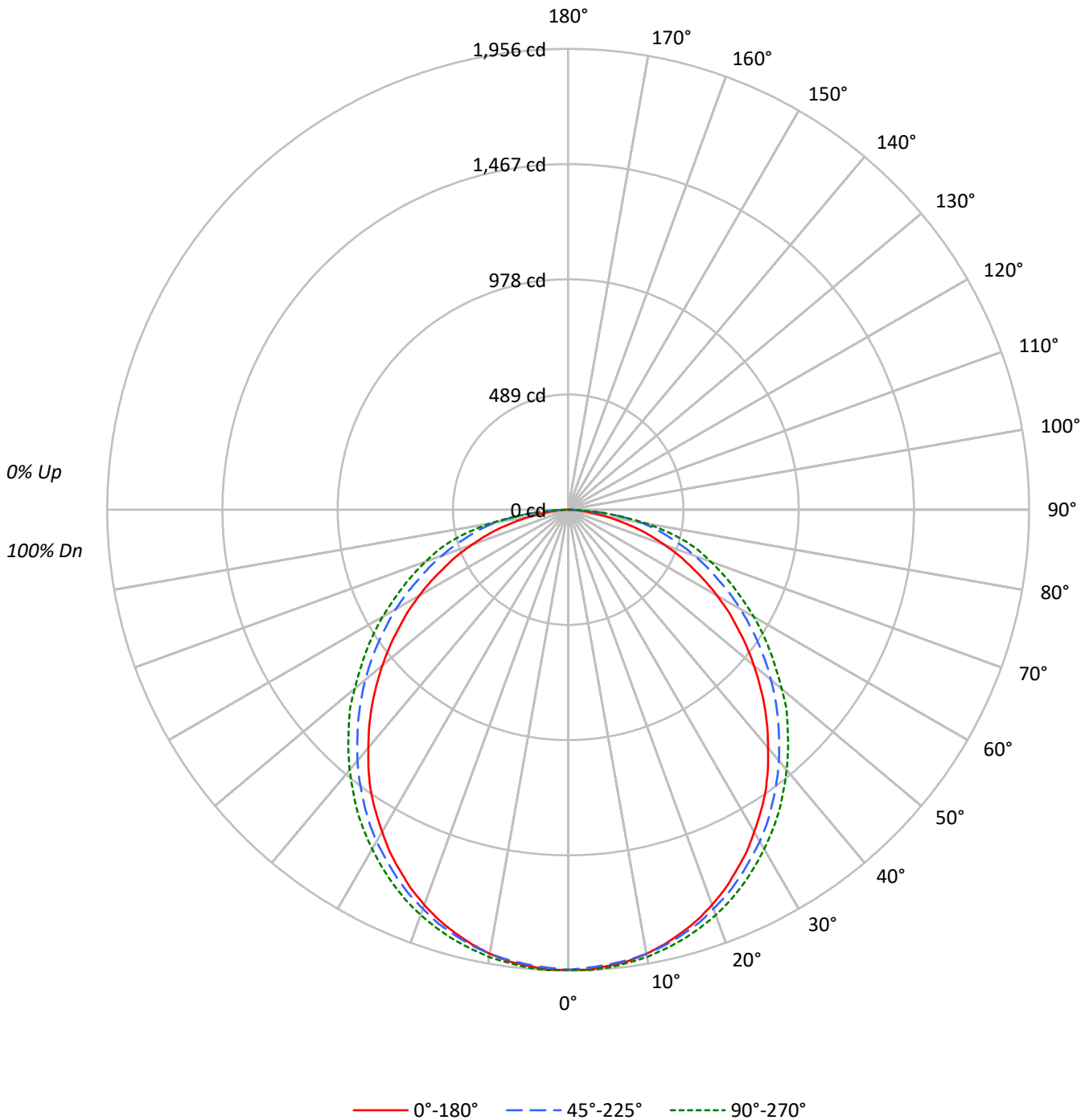
Input Watts (W): 49.011  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276662

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276662

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K

**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°	2627	2627	2627
5°	2625	2618	2635
10°	2615	2615	2634
15°	2590	2602	2629
20°	2556	2581	2622
25°	2508	2556	2605
30°	2452	2526	2584
35°	2398	2485	2564
40°	2317	2444	2534
45°	2241	2395	2506
50°	2155	2350	2476
55°	2058	2307	2452
60°	1962	2271	2447
65°	1838	2231	2462
70°	1702	2244	2528
75°	1524	2285	2671
80°	1231	2421	2613
85°	926	2126	2072



TEST NUMBER: P276662

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.9	3.3
10°-20°	528.2	9.5
20°-30°	794.0	14.3
30°-40°	945.8	17.0
40°-50°	968.0	17.4
50°-60°	871.5	15.7
60°-70°	684.4	12.3
70°-80°	444.2	8.0
80°-90°	137.4	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°	1507.1	27.1
0°-40°	2453.0	44.1
0°-60°	4292.5	77.2
0°-90°	5558.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5558.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1953	1953	1953	1953	1953	
5°	1944	1947	1939	1949	1951	185
15°	1859	1864	1868	1884	1887	524
25°	1690	1704	1721	1750	1755	778
35°	1460	1478	1513	1550	1561	911
45°	1178	1206	1259	1306	1317	908
55°	878	916	983	1035	1045	787
65°	577	622	701	759	773	575
75°	293	350	440	500	514	310
85°	60	111	138	134	134	73
90°	0	0	0	0	0	



TEST NUMBER: P276662

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L92765-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1952.7	1952.7	1952.7	1952.7	1952.7
2.5°	1954.5	1954.5	1945.6	1954.5	1956.2
5°	1943.9	1947.4	1938.6	1949.2	1950.9
7.5°	1933.3	1933.3	1928.0	1938.6	1940.3
10°	1913.9	1915.6	1913.9	1926.2	1928.0
12.5°	1889.1	1892.7	1894.4	1906.8	1908.6
15°	1859.1	1864.4	1868.0	1883.9	1887.4
17.5°	1825.6	1830.9	1839.7	1857.4	1860.9
20°	1785.0	1792.0	1802.6	1825.6	1830.9
22.5°	1740.8	1747.9	1765.6	1786.7	1795.6
25°	1689.6	1703.8	1721.4	1749.7	1755.0
27.5°	1638.4	1650.8	1673.7	1703.8	1710.8
30°	1578.4	1597.8	1626.1	1656.1	1663.2
32.5°	1520.1	1539.6	1573.1	1604.9	1613.7
35°	1460.1	1477.8	1513.1	1550.2	1560.8
37.5°	1391.3	1414.2	1453.1	1490.1	1500.7
40°	1318.9	1347.1	1391.3	1430.1	1442.5
42.5°	1250.0	1280.0	1324.2	1366.5	1380.7
45°	1177.6	1205.9	1258.8	1306.5	1317.1
47.5°	1103.5	1135.3	1191.8	1239.4	1257.1
50°	1029.3	1062.9	1122.9	1172.3	1182.9
52.5°	955.2	990.5	1054.0	1107.0	1112.3
55°	877.5	916.3	983.4	1034.6	1045.2
57.5°	806.9	840.4	912.8	965.8	978.1
60°	729.2	766.3	843.9	893.4	909.3
62.5°	655.0	693.9	775.1	824.5	838.6
65°	577.3	621.5	700.9	759.2	773.3
67.5°	510.2	552.6	637.4	693.9	708.0
70°	432.6	480.2	570.3	628.5	642.7
72.5°	365.5	414.9	504.9	561.4	582.6
75°	293.1	349.6	439.6	499.7	513.8
77.5°	222.5	287.8	379.6	425.5	425.5
80°	158.9	227.8	312.5	333.7	337.2
82.5°	104.2	171.3	231.3	229.5	229.5
85°	60.0	111.2	137.7	134.2	134.2
87.5°	23.0	45.9	49.4	49.4	47.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)