

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: P276547

Luminaire Tested: **24CZ2-75HE-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276547  
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: 24CZ2-75HE-S-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7611.0 lumens  
Efficiency: N/A  
Efficacy: 127.9 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

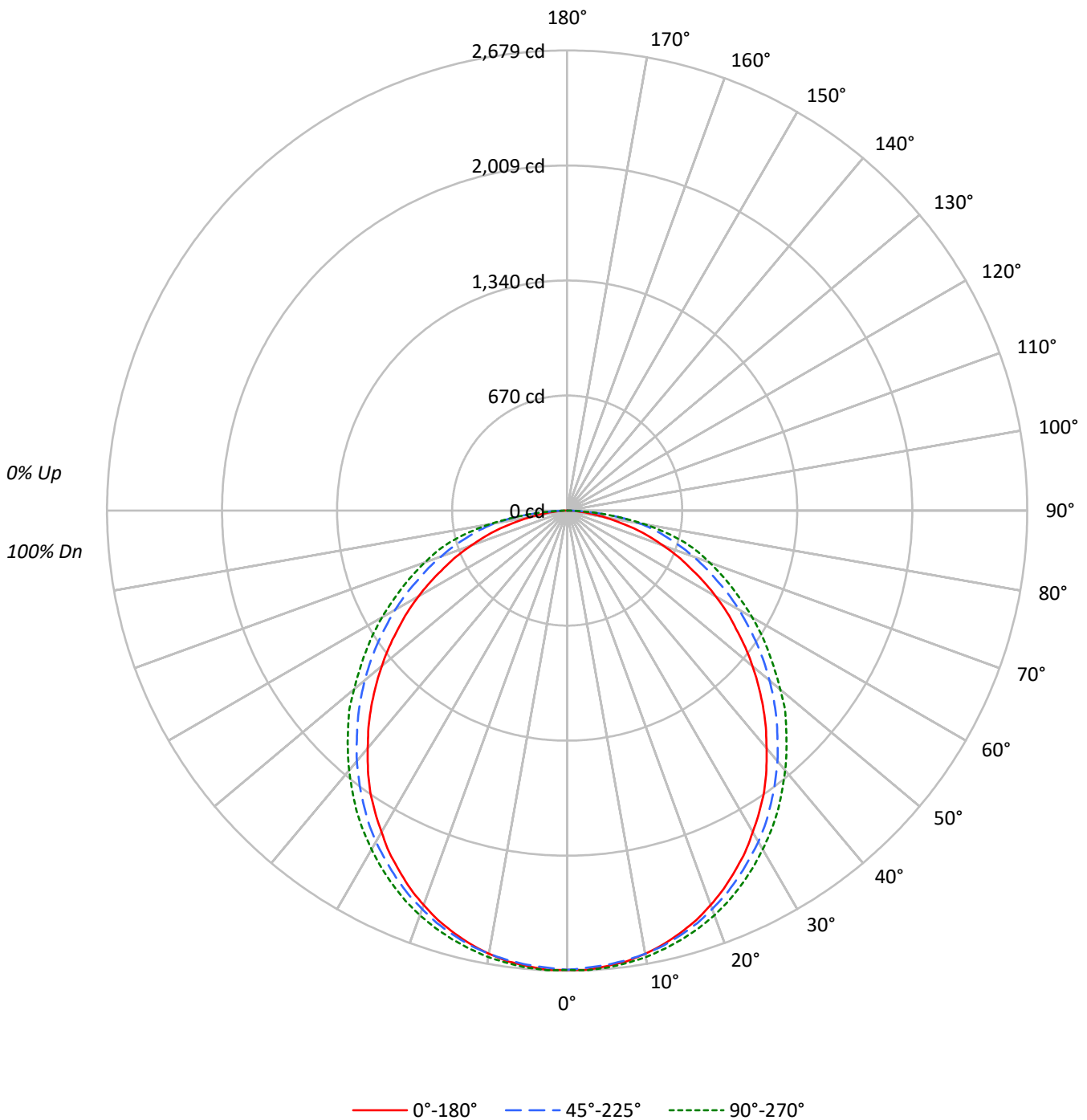
Input Watts (W): 59.52  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276547

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L82765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276547

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L82765-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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	45°	90°
0°	3598	3598	3598
5°	3595	3585	3608
10°	3580	3580	3607
15°	3546	3563	3600
20°	3500	3534	3590
25°	3435	3499	3567
30°	3358	3459	3538
35°	3284	3403	3510
40°	3172	3346	3469
45°	3068	3280	3432
50°	2950	3219	3391
55°	2818	3159	3357
60°	2687	3110	3350
65°	2517	3056	3371
70°	2330	3072	3462
75°	2086	3130	3657
80°	1686	3316	3578
85°	1269	2912	2836



TEST NUMBER: P276547

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L82765-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	253.1	3.3
10°-20°	723.3	9.5
20°-30°	1087.3	14.3
30°-40°	1295.1	17.0
40°-50°	1325.5	17.4
50°-60°	1193.3	15.7
60°-70°	937.1	12.3
70°-80°	608.2	8.0
80°-90°	188.1	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°	2063.7	27.1
0°-40°	3358.8	44.1
0°-60°	5877.6	77.2
0°-90°	7611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2662	2666	2654	2669	2671	253
15°	2546	2553	2558	2580	2584	718
25°	2314	2333	2357	2396	2403	1066
35°	1999	2024	2072	2123	2137	1247
45°	1612	1651	1724	1789	1804	1243
55°	1202	1255	1347	1417	1431	1077
65°	790	851	960	1040	1059	787
75°	401	479	602	684	704	425
85°	82	152	189	184	184	99
90°	0	0	0	0	0	



TEST NUMBER: P276547

CATALOG NUMBER: 24CZ2-75HE-S-UNV-L82765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2673.8	2673.8	2673.8	2673.8	2673.8
2.5°	2676.2	2676.2	2664.1	2676.2	2678.6
5°	2661.7	2666.5	2654.5	2669.0	2671.4
7.5°	2647.2	2647.2	2640.0	2654.5	2656.9
10°	2620.6	2623.0	2620.6	2637.5	2640.0
12.5°	2586.8	2591.6	2594.0	2610.9	2613.4
15°	2545.7	2552.9	2557.8	2579.5	2584.4
17.5°	2499.7	2507.0	2519.1	2543.3	2548.1
20°	2444.1	2453.8	2468.3	2499.7	2507.0
22.5°	2383.7	2393.4	2417.5	2446.6	2458.6
25°	2313.6	2332.9	2357.1	2395.8	2403.0
27.5°	2243.5	2260.4	2291.8	2332.9	2342.6
30°	2161.3	2187.9	2226.6	2267.7	2277.3
32.5°	2081.5	2108.1	2154.0	2197.5	2209.6
35°	1999.3	2023.5	2071.8	2122.6	2137.1
37.5°	1905.0	1936.4	1989.6	2040.4	2054.9
40°	1805.9	1844.6	1905.0	1958.2	1975.1
42.5°	1711.6	1752.7	1813.2	1871.2	1890.5
45°	1612.5	1651.2	1723.7	1789.0	1803.5
47.5°	1511.0	1554.5	1631.8	1697.1	1721.3
50°	1409.4	1455.4	1537.6	1605.2	1619.8
52.5°	1307.9	1356.2	1443.3	1515.8	1523.1
55°	1201.5	1254.7	1346.6	1416.7	1431.2
57.5°	1104.8	1150.7	1249.9	1322.4	1339.3
60°	998.4	1049.2	1155.6	1223.3	1245.0
62.5°	896.9	950.1	1061.3	1129.0	1148.3
65°	790.5	851.0	959.8	1039.5	1058.9
67.5°	698.7	756.7	872.7	950.1	969.4
70°	592.3	657.6	780.9	860.6	880.0
72.5°	500.4	568.1	691.4	768.8	797.8
75°	401.3	478.7	602.0	684.2	703.5
77.5°	304.6	394.1	519.8	582.6	582.6
80°	217.6	311.9	427.9	456.9	461.8
82.5°	142.6	234.5	316.7	314.3	314.3
85°	82.2	152.3	188.6	183.7	183.7
87.5°	31.4	62.9	67.7	67.7	65.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)