

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: P276500

Luminaire Tested: **24CZ2-50HE-S-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276500  
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-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4879.5 lumens  
Efficiency: N/A  
Efficacy: 135.9 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

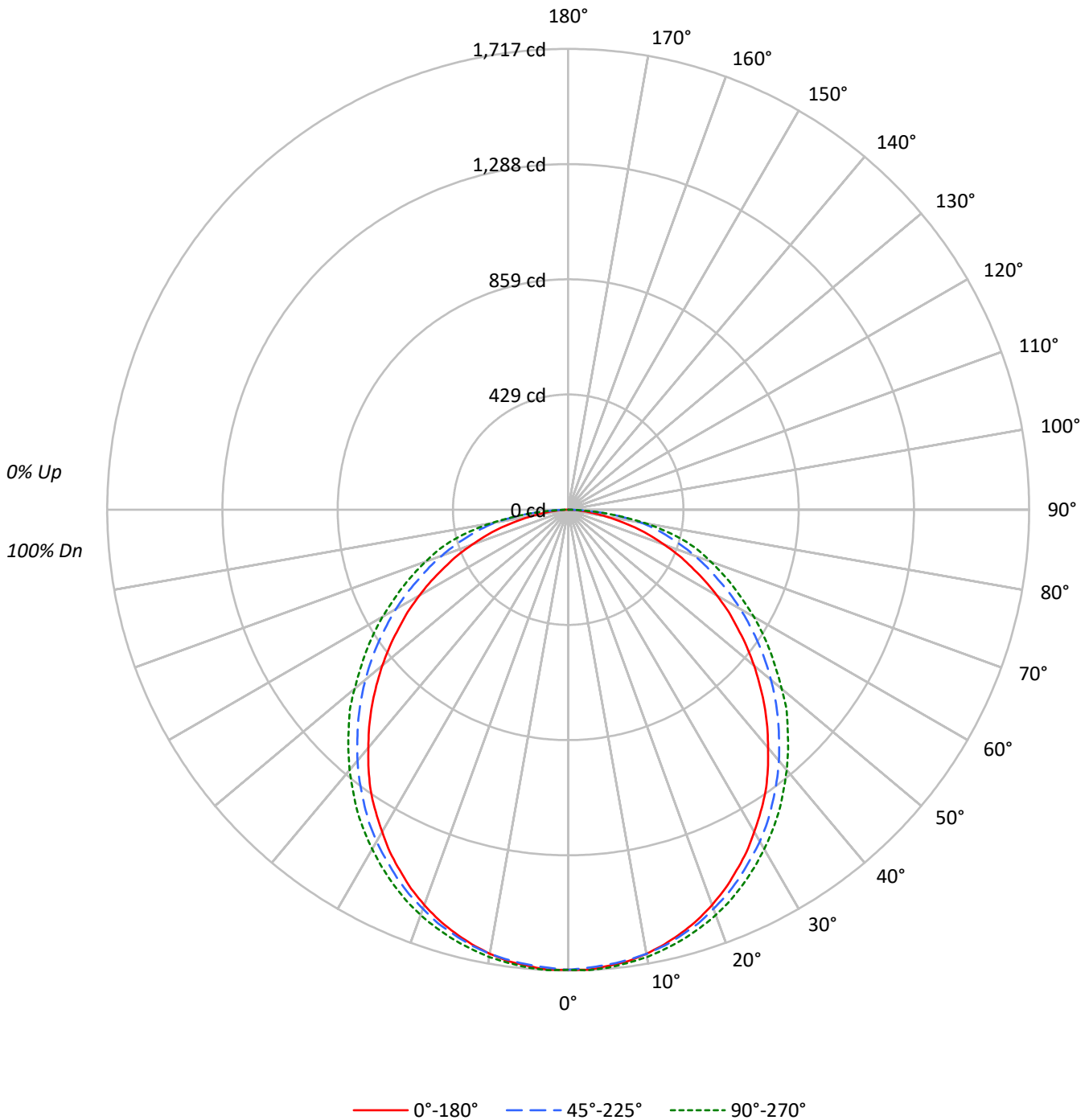
Input Watts (W): 35.898  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	2306	2306	2306
5°	2305	2299	2313
10°	2295	2295	2312
15°	2273	2284	2308
20°	2244	2266	2301
25°	2202	2244	2287
30°	2153	2218	2268
35°	2105	2182	2250
40°	2034	2145	2224
45°	1967	2103	2200
50°	1891	2063	2174
55°	1807	2025	2152
60°	1722	1994	2148
65°	1613	1959	2161
70°	1494	1969	2220
75°	1338	2006	2345
80°	1081	2125	2294
85°	814	1866	1819



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	162.3	3.3
10°-20°	463.7	9.5
20°-30°	697.1	14.3
30°-40°	830.3	17.0
40°-50°	849.8	17.4
50°-60°	765.1	15.7
60°-70°	600.8	12.3
70°-80°	389.9	8.0
80°-90°	120.6	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°	1323.1	27.1
0°-40°	2153.4	44.1
0°-60°	3768.2	77.2
0°-90°	4879.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4879.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1714	1714	1714	1714	1714	
5°	1706	1710	1702	1711	1713	162
15°	1632	1637	1640	1654	1657	460
25°	1483	1496	1511	1536	1541	683
35°	1282	1297	1328	1361	1370	800
45°	1034	1059	1105	1147	1156	797
55°	770	804	863	908	918	691
65°	507	546	615	666	679	505
75°	257	307	386	439	451	272
85°	53	98	121	118	118	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1714.2	1714.2	1714.2	1714.2	1714.2
2.5°	1715.8	1715.8	1708.0	1715.8	1717.3
5°	1706.5	1709.6	1701.8	1711.1	1712.7
7.5°	1697.2	1697.2	1692.5	1701.8	1703.4
10°	1680.1	1681.7	1680.1	1691.0	1692.5
12.5°	1658.4	1661.5	1663.1	1673.9	1675.5
15°	1632.1	1636.7	1639.8	1653.8	1656.9
17.5°	1602.6	1607.3	1615.0	1630.5	1633.6
20°	1567.0	1573.2	1582.5	1602.6	1607.3
22.5°	1528.2	1534.4	1549.9	1568.5	1576.3
25°	1483.3	1495.7	1511.2	1536.0	1540.6
27.5°	1438.3	1449.2	1469.3	1495.7	1501.9
30°	1385.6	1402.7	1427.5	1453.8	1460.0
32.5°	1334.5	1351.5	1381.0	1408.9	1416.6
35°	1281.8	1297.3	1328.3	1360.8	1370.1
37.5°	1221.3	1241.5	1275.6	1308.1	1317.4
40°	1157.8	1182.6	1221.3	1255.4	1266.3
42.5°	1097.3	1123.7	1162.4	1199.6	1212.0
45°	1033.8	1058.6	1105.1	1146.9	1156.2
47.5°	968.7	996.6	1046.2	1088.0	1103.5
50°	903.6	933.0	985.7	1029.1	1038.4
52.5°	838.5	869.5	925.3	971.8	976.4
55°	770.3	804.4	863.3	908.3	917.6
57.5°	708.3	737.8	801.3	847.8	858.7
60°	640.1	672.7	740.9	784.3	798.2
62.5°	575.0	609.1	680.4	723.8	736.2
65°	506.8	545.6	615.3	666.5	678.9
67.5°	447.9	485.1	559.5	609.1	621.5
70°	379.7	421.6	500.6	551.8	564.2
72.5°	320.8	364.2	443.3	492.9	511.5
75°	257.3	306.9	385.9	438.6	451.0
77.5°	195.3	252.6	333.2	373.5	373.5
80°	139.5	199.9	274.3	292.9	296.0
82.5°	91.4	150.3	203.0	201.5	201.5
85°	52.7	97.6	120.9	117.8	117.8
87.5°	20.1	40.3	43.4	43.4	41.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)