

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: P276080

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276080  
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-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4643.9 lumens  
Efficiency: N/A  
Efficacy: 129.4 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

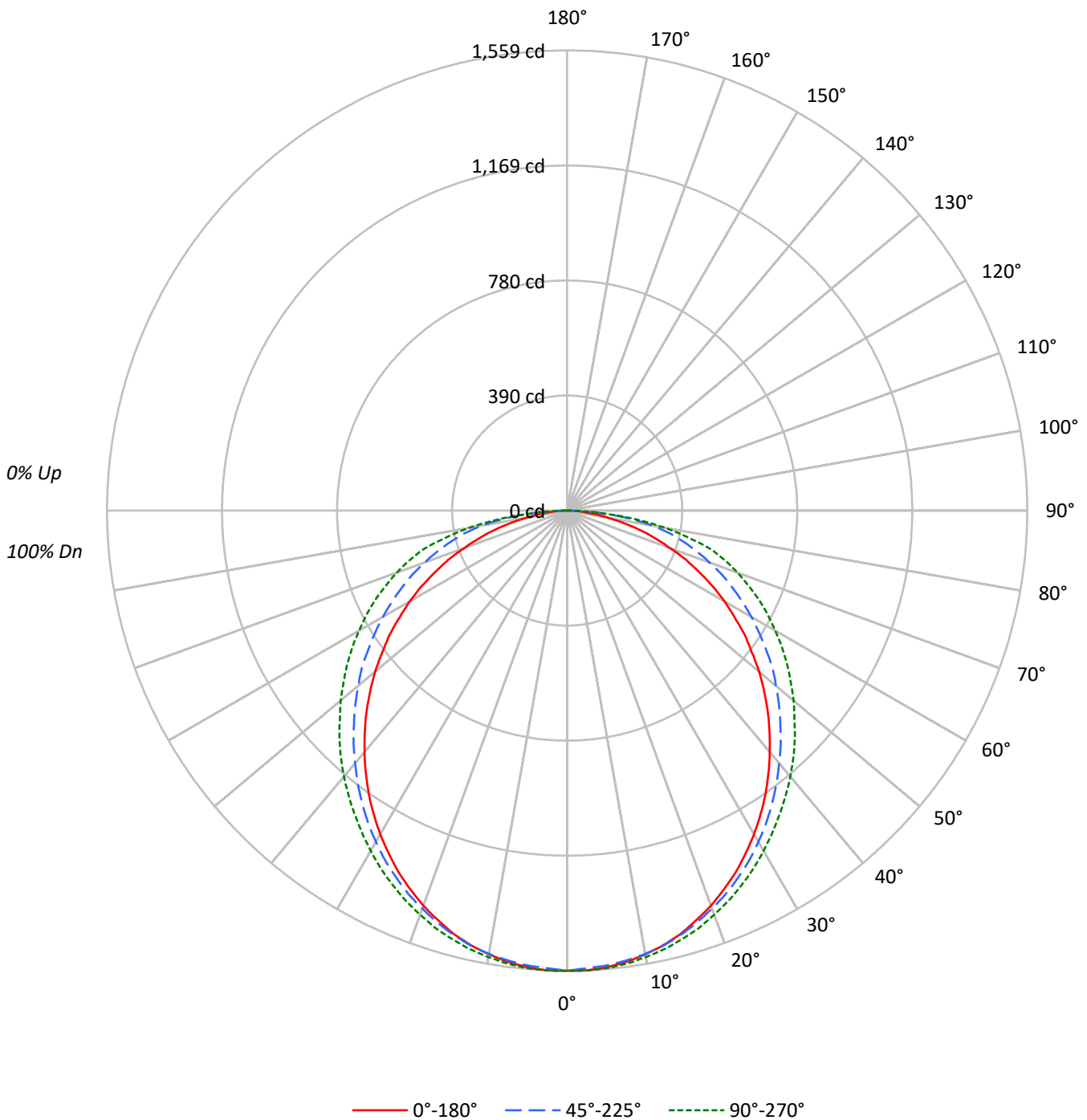
Input Watts (W): 35.898  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2098	2098	2098
5°	2098	2089	2102
10°	2086	2084	2098
15°	2068	2073	2094
20°	2039	2055	2086
25°	2006	2036	2078
30°	1967	2013	2068
35°	1925	1988	2062
40°	1876	1963	2066
45°	1828	1944	2076
50°	1778	1933	2096
55°	1723	1931	2134
60°	1656	1939	2190
65°	1569	1969	2285
70°	1457	2018	2415
75°	1329	2119	2619
80°	1093	2282	2618
85°	837	2106	2249



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.5	3.2
10°-20°	421.0	9.1
20°-30°	633.5	13.6
30°-40°	759.2	16.3
40°-50°	791.2	17.0
50°-60°	736.1	15.9
60°-70°	606.3	13.1
70°-80°	412.9	8.9
80°-90°	136.3	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°	1202.0	25.9
0°-40°	1961.2	42.2
0°-60°	3488.4	75.1
0°-90°	4643.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4643.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1553	1553	1547	1554	1556	147
15°	1485	1486	1488	1502	1503	418
25°	1352	1358	1372	1395	1400	622
35°	1172	1186	1210	1243	1255	732
45°	961	981	1021	1072	1091	741
55°	735	759	823	888	910	655
65°	493	535	618	691	718	489
75°	256	313	408	480	504	270
85°	54	105	136	146	146	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1559.2	1559.2	1559.2	1559.2	1559.2
2.5°	1559.2	1559.2	1551.4	1559.2	1559.2
5°	1553.0	1553.0	1546.8	1554.5	1556.1
7.5°	1542.1	1543.7	1537.5	1546.8	1548.3
10°	1526.6	1528.2	1525.1	1534.4	1535.9
12.5°	1508.0	1509.6	1509.6	1520.4	1522.0
15°	1484.8	1486.3	1487.9	1501.8	1503.4
17.5°	1455.3	1460.0	1463.1	1480.1	1483.2
20°	1424.3	1429.0	1435.2	1453.8	1456.9
22.5°	1388.7	1394.9	1405.7	1425.9	1430.5
25°	1351.5	1357.7	1371.6	1394.9	1399.5
27.5°	1309.6	1318.9	1336.0	1360.8	1367.0
30°	1266.3	1275.6	1295.7	1322.0	1331.3
32.5°	1219.8	1232.2	1255.4	1284.8	1294.1
35°	1171.7	1185.7	1210.5	1243.0	1255.4
37.5°	1120.6	1136.1	1165.5	1201.2	1216.7
40°	1067.9	1086.5	1117.5	1159.3	1176.4
42.5°	1015.2	1032.2	1071.0	1115.9	1134.5
45°	960.9	981.1	1021.4	1072.5	1091.1
47.5°	905.1	925.3	973.3	1027.6	1044.6
50°	849.3	869.5	923.7	981.1	1001.2
52.5°	788.9	815.2	877.2	934.6	954.7
55°	734.6	759.4	823.0	888.1	909.8
57.5°	672.6	702.1	771.8	840.0	863.3
60°	615.3	646.3	720.7	790.4	813.7
62.5°	556.4	590.5	669.5	740.8	767.2
65°	492.9	534.7	618.4	691.2	717.6
67.5°	435.5	478.9	567.3	641.6	664.9
70°	370.4	423.1	513.0	587.4	613.8
72.5°	314.6	367.3	461.9	534.7	561.1
75°	255.7	313.1	407.6	480.5	503.7
77.5°	196.8	260.4	354.9	410.7	418.5
80°	141.0	207.7	294.5	327.0	337.9
82.5°	99.2	159.6	217.0	238.7	244.9
85°	54.2	105.4	136.4	145.7	145.7
87.5°	23.2	44.9	54.2	55.8	57.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)