

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: P276085

Luminaire Tested: **24CZ2-50HE-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276085  
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-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4957.0 lumens  
Efficiency: N/A  
Efficacy: 134.9 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

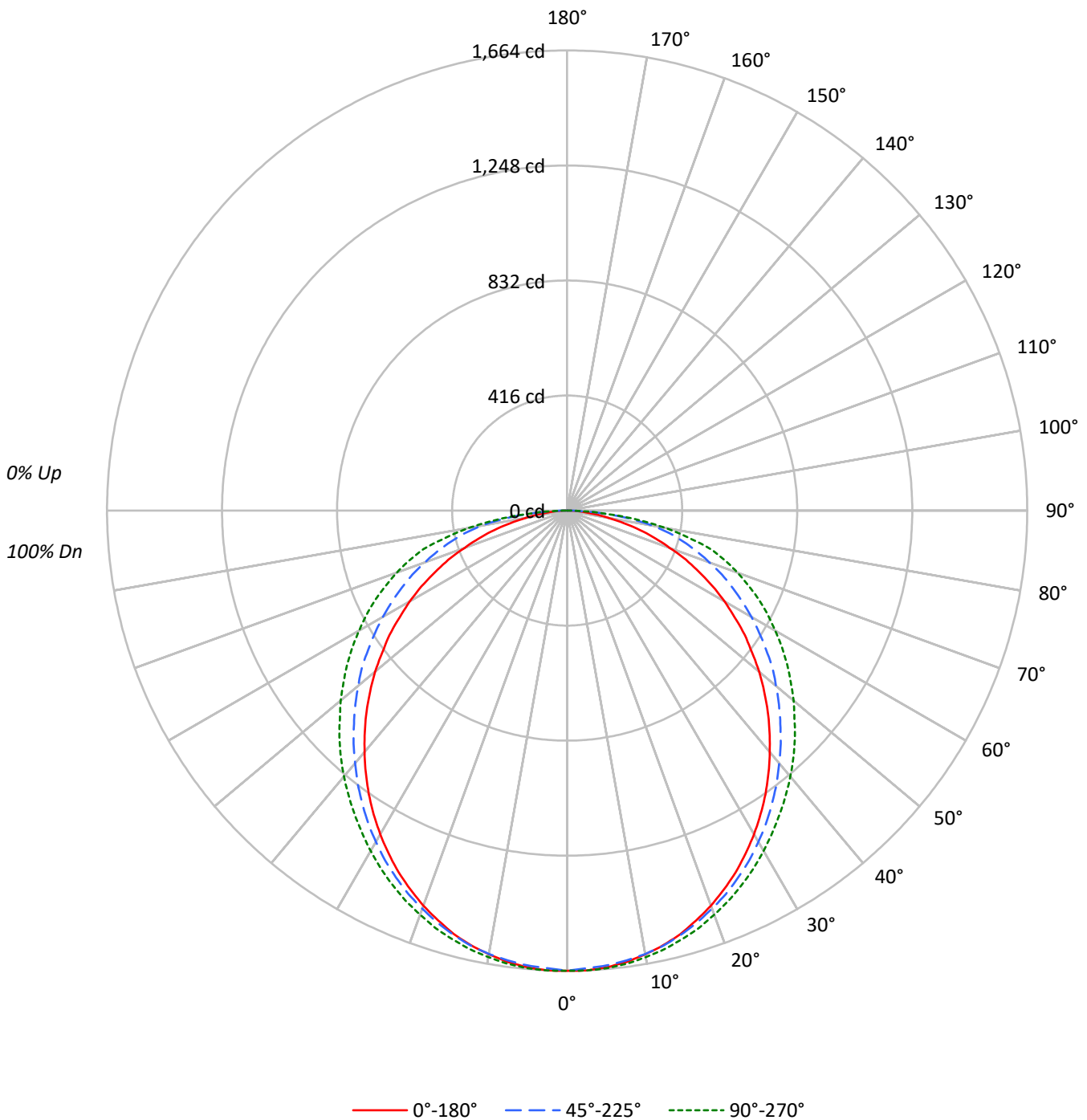
Input Watts (W): 36.735  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2239	2239	2239
5°	2239	2230	2243
10°	2226	2224	2240
15°	2208	2212	2235
20°	2177	2194	2227
25°	2142	2174	2218
30°	2100	2149	2208
35°	2054	2122	2201
40°	2002	2095	2206
45°	1952	2074	2216
50°	1898	2064	2237
55°	1840	2061	2278
60°	1767	2070	2337
65°	1675	2102	2439
70°	1555	2154	2577
75°	1419	2262	2795
80°	1166	2435	2795
85°	894	2248	2401



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	157.4	3.2
10°-20°	449.4	9.1
20°-30°	676.2	13.6
30°-40°	810.4	16.3
40°-50°	844.5	17.0
50°-60°	785.7	15.9
60°-70°	647.1	13.1
70°-80°	440.7	8.9
80°-90°	145.5	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°	1283.0	25.9
0°-40°	2093.4	42.2
0°-60°	3723.7	75.1
0°-90°	4957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4957.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1664	1664	1664	1664	1664	
5°	1658	1658	1651	1659	1661	157
15°	1585	1587	1588	1603	1605	447
25°	1443	1449	1464	1489	1494	664
35°	1251	1266	1292	1327	1340	782
45°	1026	1047	1090	1145	1165	791
55°	784	811	878	948	971	699
65°	526	571	660	738	766	522
75°	273	334	435	513	538	288
85°	58	112	146	156	156	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1664.3	1664.3	1664.3	1664.3	1664.3
2.5°	1664.3	1664.3	1656.0	1664.3	1664.3
5°	1657.7	1657.7	1651.1	1659.3	1661.0
7.5°	1646.1	1647.8	1641.1	1651.1	1652.7
10°	1629.6	1631.2	1627.9	1637.8	1639.5
12.5°	1609.7	1611.4	1611.4	1622.9	1624.6
15°	1584.9	1586.6	1588.2	1603.1	1604.8
17.5°	1553.5	1558.4	1561.7	1579.9	1583.2
20°	1520.4	1525.3	1532.0	1551.8	1555.1
22.5°	1482.3	1488.9	1500.5	1522.0	1527.0
25°	1442.6	1449.2	1464.1	1488.9	1493.9
27.5°	1398.0	1407.9	1426.1	1452.5	1459.2
30°	1351.6	1361.6	1383.1	1411.2	1421.1
32.5°	1302.0	1315.2	1340.0	1371.5	1381.4
35°	1250.7	1265.6	1292.1	1326.8	1340.0
37.5°	1196.1	1212.7	1244.1	1282.1	1298.7
40°	1139.9	1159.7	1192.8	1237.5	1255.7
42.5°	1083.6	1101.8	1143.2	1191.2	1211.0
45°	1025.7	1047.2	1090.2	1144.8	1164.7
47.5°	966.2	987.7	1039.0	1096.9	1115.1
50°	906.6	928.1	986.0	1047.2	1068.7
52.5°	842.1	870.2	936.4	997.6	1019.1
55°	784.2	810.6	878.5	948.0	971.1
57.5°	718.0	749.4	823.9	896.7	921.5
60°	656.8	689.9	769.3	843.7	868.6
62.5°	593.9	630.3	714.7	790.8	818.9
65°	526.1	570.8	660.1	737.9	766.0
67.5°	464.9	511.2	605.5	684.9	709.7
70°	395.4	451.6	547.6	627.0	655.1
72.5°	335.8	392.1	493.0	570.8	598.9
75°	273.0	334.2	435.1	512.9	537.7
77.5°	210.1	277.9	378.9	438.4	446.7
80°	150.5	221.7	314.3	349.1	360.7
82.5°	105.9	170.4	231.6	254.8	261.4
85°	57.9	112.5	145.6	155.5	155.5
87.5°	24.8	48.0	57.9	59.6	61.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)