

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: P276640

Luminaire Tested: **24CZ2-50HE-S-UNV-L92765-W2A1-U-5700K**

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: P276640  
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-L92765-W2A1-U-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4709.5 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

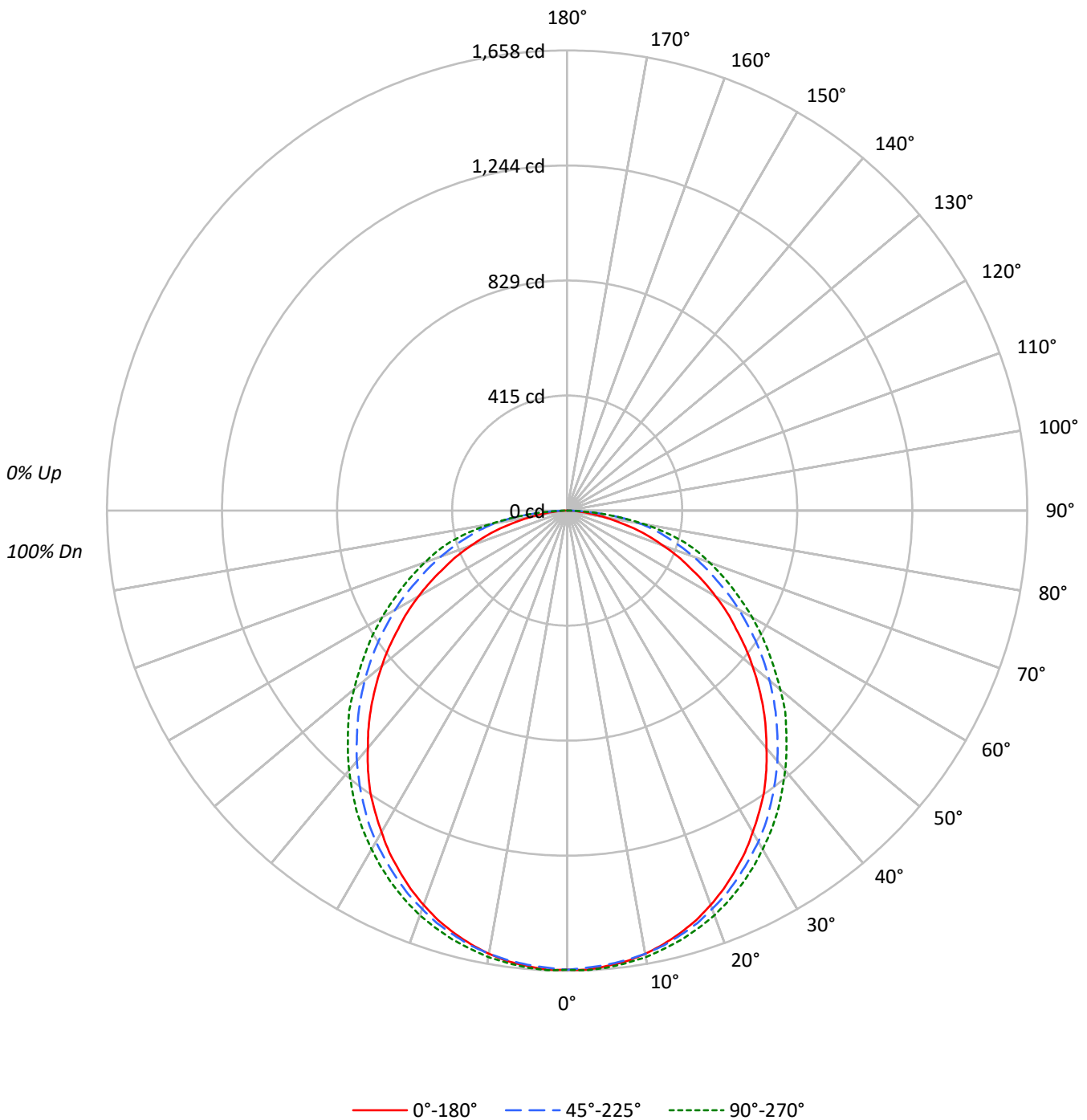
Input Watts (W): 36.828  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2226	2226	2226
5°	2224	2218	2233
10°	2216	2216	2232
15°	2194	2205	2227
20°	2166	2187	2221
25°	2125	2165	2208
30°	2078	2140	2189
35°	2032	2106	2172
40°	1963	2070	2147
45°	1899	2030	2124
50°	1825	1991	2098
55°	1744	1955	2077
60°	1662	1924	2073
65°	1557	1891	2086
70°	1442	1901	2142
75°	1291	1936	2263
80°	1043	2052	2214
85°	786	1802	1755



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.6	3.3
10°-20°	447.6	9.5
20°-30°	672.8	14.3
30°-40°	801.4	17.0
40°-50°	820.2	17.4
50°-60°	738.4	15.7
60°-70°	579.9	12.3
70°-80°	376.3	8.0
80°-90°	116.4	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°	1277.0	27.1
0°-40°	2078.3	44.1
0°-60°	3636.9	77.2
0°-90°	4709.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4709.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1647	1650	1642	1652	1653	156
15°	1575	1580	1583	1596	1599	444
25°	1432	1444	1458	1482	1487	660
35°	1237	1252	1282	1313	1322	772
45°	998	1022	1067	1107	1116	769
55°	744	776	833	877	886	667
65°	489	527	594	643	655	487
75°	248	296	372	423	435	263
85°	51	94	117	114	114	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1654.5	1654.5	1654.5	1654.5	1654.5
2.5°	1656.0	1656.0	1648.5	1656.0	1657.5
5°	1647.0	1650.0	1642.5	1651.5	1653.0
7.5°	1638.0	1638.0	1633.6	1642.5	1644.0
10°	1621.6	1623.1	1621.6	1632.1	1633.6
12.5°	1600.6	1603.6	1605.1	1615.6	1617.1
15°	1575.2	1579.7	1582.7	1596.2	1599.1
17.5°	1546.8	1551.3	1558.8	1573.7	1576.7
20°	1512.4	1518.4	1527.3	1546.8	1551.3
22.5°	1475.0	1481.0	1495.9	1513.9	1521.4
25°	1431.6	1443.6	1458.5	1482.5	1487.0
27.5°	1388.2	1398.7	1418.1	1443.6	1449.6
30°	1337.4	1353.8	1377.7	1403.2	1409.2
32.5°	1288.0	1304.4	1332.9	1359.8	1367.3
35°	1237.1	1252.1	1282.0	1313.4	1322.4
37.5°	1178.8	1198.2	1231.1	1262.6	1271.5
40°	1117.5	1141.4	1178.8	1211.7	1222.2
42.5°	1059.1	1084.5	1121.9	1157.8	1169.8
45°	997.8	1021.7	1066.6	1107.0	1116.0
47.5°	935.0	961.9	1009.7	1050.1	1065.1
50°	872.1	900.5	951.4	993.3	1002.3
52.5°	809.3	839.2	893.1	937.9	942.4
55°	743.5	776.4	833.2	876.6	885.6
57.5°	683.6	712.1	773.4	818.3	828.7
60°	617.8	649.2	715.1	756.9	770.4
62.5°	555.0	587.9	656.7	698.6	710.6
65°	489.2	526.6	593.9	643.2	655.2
67.5°	432.3	468.2	540.0	587.9	599.9
70°	366.5	406.9	483.2	532.5	544.5
72.5°	309.7	351.5	427.8	475.7	493.7
75°	248.3	296.2	372.5	423.3	435.3
77.5°	188.5	243.8	321.6	360.5	360.5
80°	134.6	193.0	264.8	282.7	285.7
82.5°	88.3	145.1	196.0	194.5	194.5
85°	50.9	94.2	116.7	113.7	113.7
87.5°	19.4	38.9	41.9	41.9	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)