

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: P345097

Luminaire Tested: **24CZ-50SE-L850-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345097  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1905-313-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-50SE-L850-HRP-UNV-CD1-U  
Description: CRUZE 2X4 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4763.6 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

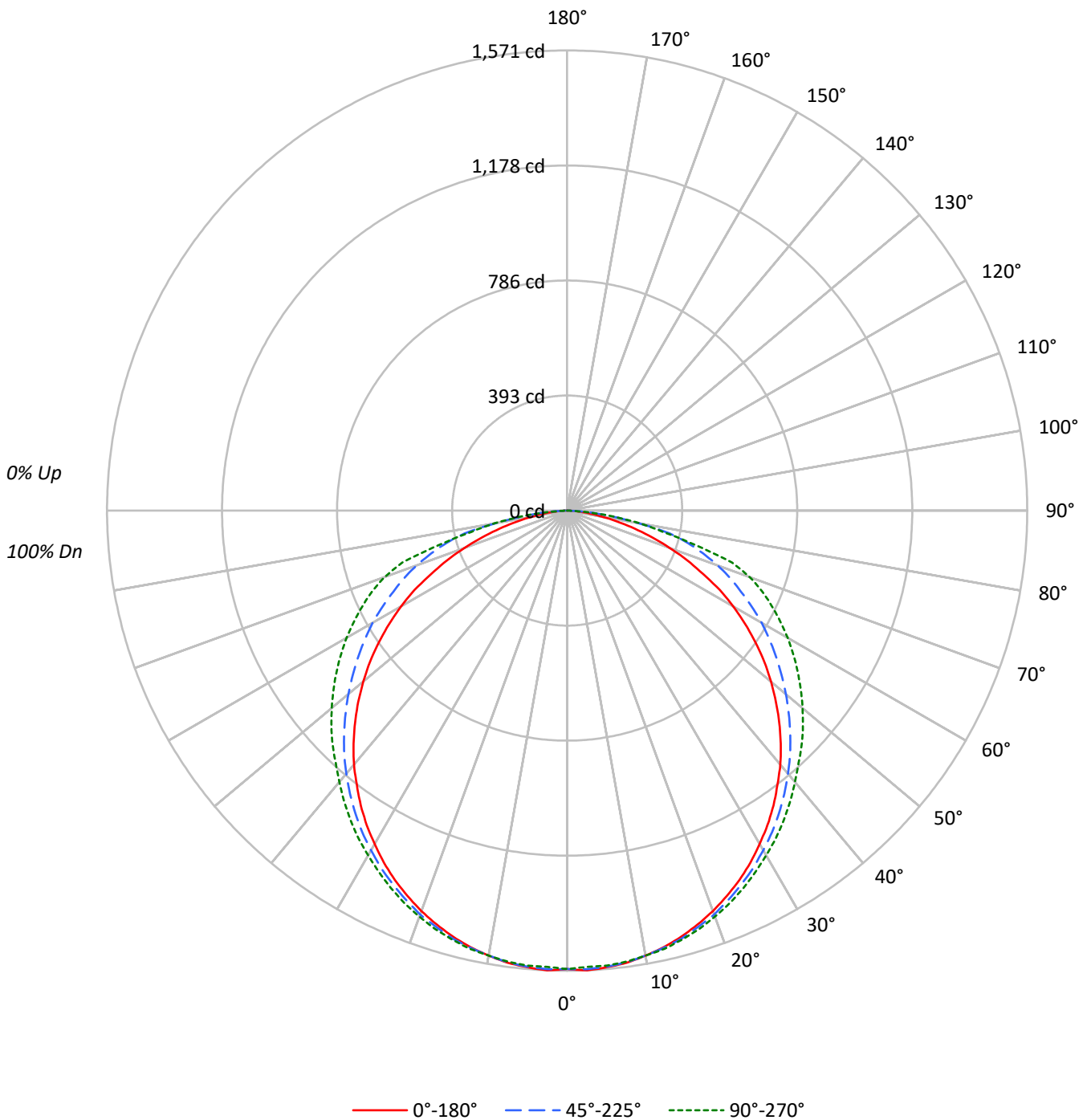
Input Watts (W): 46.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25

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

	0°	45°	90°
0°	2106	2106	2106
5°	2114	2111	2106
10°	2108	2108	2108
15°	2098	2106	2112
20°	2083	2101	2112
25°	2066	2090	2112
30°	2042	2080	2111
35°	2018	2071	2118
40°	1989	2061	2125
45°	1949	2050	2155
50°	1901	2042	2196
55°	1843	2044	2255
60°	1763	2065	2339
65°	1631	2085	2456
70°	1469	2151	2609
75°	1241	2217	2334
80°	965	1898	1960
85°	693	1292	1135



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.4	3.1
10°-20°	426.0	8.9
20°-30°	647.8	13.6
30°-40°	787.1	16.5
40°-50°	830.7	17.4
50°-60°	780.6	16.4
60°-70°	642.6	13.5
70°-80°	404.8	8.5
80°-90°	95.6	2.0
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°	1222.2	25.7
0°-40°	2009.3	42.2
0°-60°	3620.6	76.0
0°-90°	4763.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4763.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1565	1565	1565	1565	1565	
5°	1565	1557	1563	1561	1559	149
15°	1506	1500	1512	1516	1516	425
25°	1392	1390	1408	1416	1422	641
35°	1228	1235	1261	1277	1290	768
45°	1024	1041	1077	1108	1132	790
55°	786	814	871	932	961	701
65°	512	561	655	739	771	509
75°	239	312	426	465	449	255
85°	45	76	84	78	74	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1565.1	1565.1	1565.1	1565.1	1565.1
2.5°	1571.3	1561.0	1567.2	1565.1	1559.0
5°	1565.1	1557.0	1563.1	1561.0	1559.0
7.5°	1557.0	1548.8	1554.9	1552.9	1552.9
10°	1542.7	1536.6	1542.7	1542.7	1542.7
12.5°	1526.4	1520.2	1528.4	1530.4	1532.5
15°	1506.0	1499.8	1512.1	1516.2	1516.2
17.5°	1481.5	1477.4	1489.6	1493.7	1497.8
20°	1454.9	1452.9	1467.2	1471.3	1475.3
22.5°	1424.3	1424.3	1438.6	1442.7	1450.9
25°	1391.7	1389.6	1408.0	1416.2	1422.3
27.5°	1355.0	1355.0	1375.4	1385.6	1391.7
30°	1314.1	1318.2	1338.6	1350.9	1359.0
32.5°	1273.3	1277.4	1301.9	1316.2	1326.4
35°	1228.4	1234.6	1261.1	1277.4	1289.7
37.5°	1179.5	1189.7	1218.2	1236.6	1250.9
40°	1132.5	1140.7	1173.3	1193.7	1210.1
42.5°	1079.5	1093.8	1126.4	1150.9	1169.3
45°	1024.4	1040.7	1077.4	1108.0	1132.5
47.5°	967.2	987.6	1026.4	1067.2	1091.7
50°	908.1	930.5	975.4	1024.4	1048.9
52.5°	848.9	873.4	922.3	979.5	1006.0
55°	785.6	814.2	871.3	932.5	961.1
57.5°	720.3	753.0	818.3	887.7	916.2
60°	655.0	689.7	767.3	836.6	869.3
62.5°	587.7	626.5	710.1	789.7	820.3
65°	512.2	561.2	655.0	738.7	771.3
67.5°	442.8	493.8	602.0	685.6	720.3
70°	373.4	432.6	546.9	630.5	663.2
72.5°	304.0	373.4	485.7	571.4	589.7
75°	238.7	312.2	426.5	465.3	448.9
77.5°	175.5	257.1	359.1	338.7	334.7
80°	124.5	204.1	244.9	246.9	253.0
82.5°	79.6	151.0	159.2	161.2	163.2
85°	44.9	75.5	83.7	77.5	73.5
87.5°	20.4	24.5	20.4	14.3	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)