

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: P345108

Luminaire Tested: **24CZ-65SE-L840-HRP-UNV-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345108  
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-65SE-L840-HRP-UNV-CD1-U  
Description: CRUZE 2X4 WITH HRP LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5660.0 lumens  
Efficiency: N/A  
Efficacy: 95.0 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

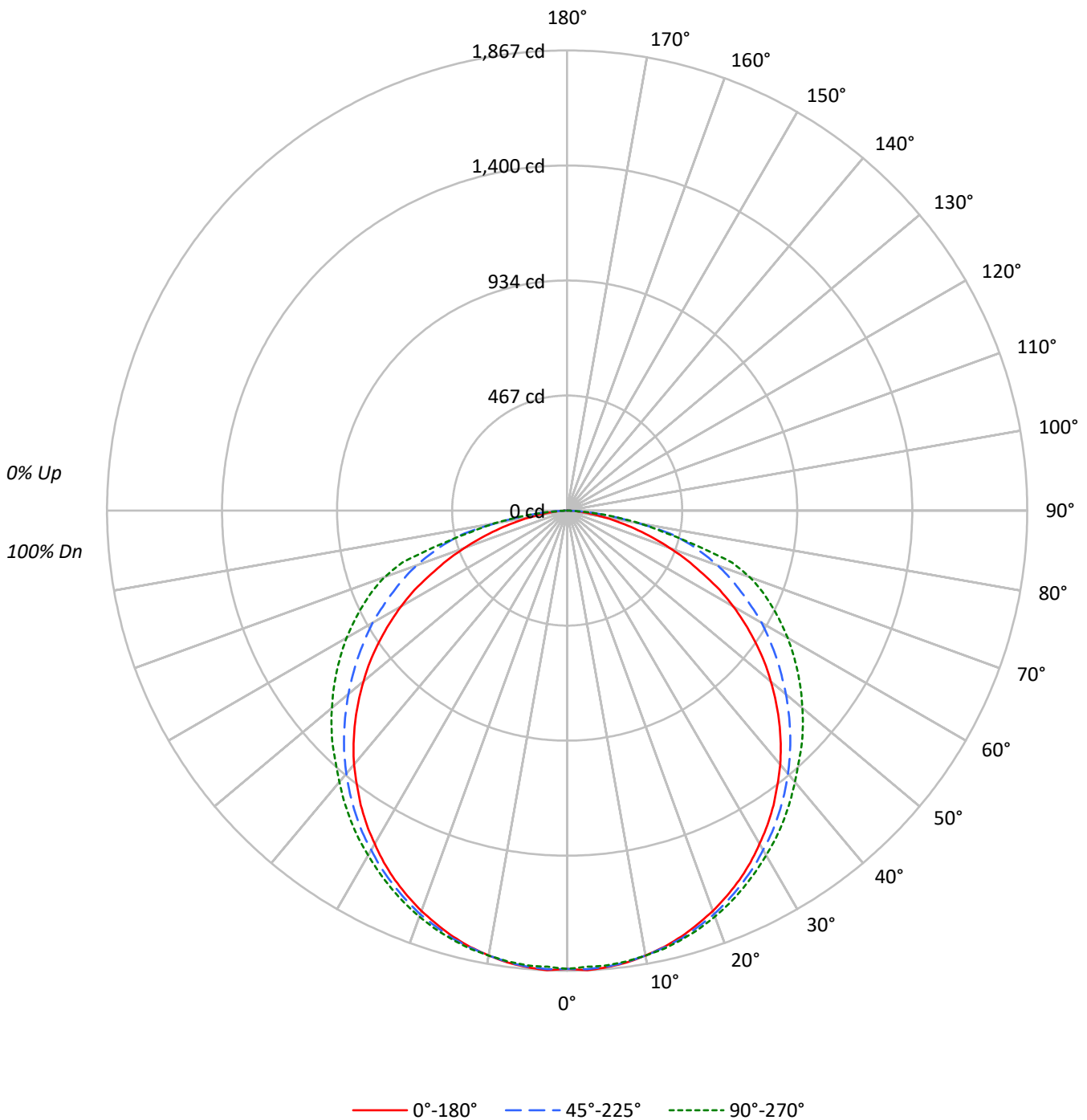
Input Watts (W): 59.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P345108

CATALOG NUMBER: 24CZ-65SE-L840-HRP-UNV-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P345108

CATALOG NUMBER: 24CZ-65SE-L840-HRP-UNV-CD1-U

**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	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	86	76	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	52	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	34	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	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°	2502	2502	2502
5°	2512	2508	2502
10°	2504	2504	2504
15°	2492	2503	2509
20°	2475	2496	2510
25°	2455	2484	2509
30°	2426	2471	2509
35°	2397	2461	2517
40°	2363	2449	2525
45°	2316	2436	2560
50°	2258	2426	2609
55°	2190	2429	2679
60°	2094	2453	2780
65°	1938	2478	2918
70°	1745	2556	3100
75°	1475	2634	2773
80°	1146	2254	2329
85°	823	1535	1348



TEST NUMBER: P345108

CATALOG NUMBER: 24CZ-65SE-L840-HRP-UNV-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.3	3.1
10°-20°	506.2	8.9
20°-30°	769.7	13.6
30°-40°	935.2	16.5
40°-50°	987.0	17.4
50°-60°	927.5	16.4
60°-70°	763.5	13.5
70°-80°	481.0	8.5
80°-90°	113.6	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°	1452.2	25.7
0°-40°	2387.4	42.2
0°-60°	4301.9	76.0
0°-90°	5660.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5660.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1860	1860	1860	1860	1860	
5°	1860	1850	1857	1855	1852	177
15°	1789	1782	1797	1801	1801	505
25°	1654	1651	1673	1683	1690	762
35°	1460	1467	1498	1518	1532	913
45°	1217	1236	1280	1316	1346	938
55°	934	967	1035	1108	1142	833
65°	609	667	778	878	916	604
75°	284	371	507	553	533	303
85°	53	90	99	92	87	67
90°	0	0	0	0	0	



TEST NUMBER: P345108

CATALOG NUMBER: 24CZ-65SE-L840-HRP-UNV-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1866.9	1854.8	1862.1	1859.6	1852.4
5°	1859.6	1849.9	1857.2	1854.8	1852.4
7.5°	1849.9	1840.2	1847.5	1845.1	1845.1
10°	1833.0	1825.7	1833.0	1833.0	1833.0
12.5°	1813.6	1806.3	1816.0	1818.4	1820.8
15°	1789.3	1782.1	1796.6	1801.4	1801.4
17.5°	1760.2	1755.4	1769.9	1774.8	1779.6
20°	1728.7	1726.3	1743.3	1748.1	1753.0
22.5°	1692.3	1692.3	1709.3	1714.2	1723.9
25°	1653.6	1651.1	1672.9	1682.6	1689.9
27.5°	1609.9	1609.9	1634.2	1646.3	1653.6
30°	1561.4	1566.3	1590.5	1605.1	1614.8
32.5°	1512.9	1517.8	1546.9	1563.8	1576.0
35°	1459.6	1466.9	1498.4	1517.8	1532.3
37.5°	1401.4	1413.5	1447.5	1469.3	1486.3
40°	1345.6	1355.3	1394.1	1418.4	1437.8
42.5°	1282.6	1299.6	1338.4	1367.5	1389.3
45°	1217.1	1236.5	1280.2	1316.5	1345.6
47.5°	1149.2	1173.5	1219.6	1268.0	1297.1
50°	1078.9	1105.6	1158.9	1217.1	1246.2
52.5°	1008.6	1037.7	1095.9	1163.8	1195.3
55°	933.5	967.4	1035.3	1108.0	1142.0
57.5°	855.9	894.7	972.2	1054.7	1088.6
60°	778.3	819.5	911.6	994.1	1032.9
62.5°	698.3	744.3	843.7	938.3	974.7
65°	608.6	666.8	778.3	877.7	916.5
67.5°	526.1	586.7	715.2	814.7	855.9
70°	443.7	514.0	649.8	749.2	788.0
72.5°	361.3	443.7	577.0	678.9	700.7
75°	283.7	371.0	506.7	552.8	533.4
77.5°	208.5	305.5	426.7	402.5	397.6
80°	147.9	242.5	290.9	293.4	300.6
82.5°	94.6	179.4	189.1	191.5	194.0
85°	53.3	89.7	99.4	92.1	87.3
87.5°	24.2	29.1	24.2	17.0	14.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)