

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: P295058

Luminaire Tested: **24CZ2-55-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P295058  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55-HRP-UNV-L950-CD1-U  
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS  
Light Source: (112) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

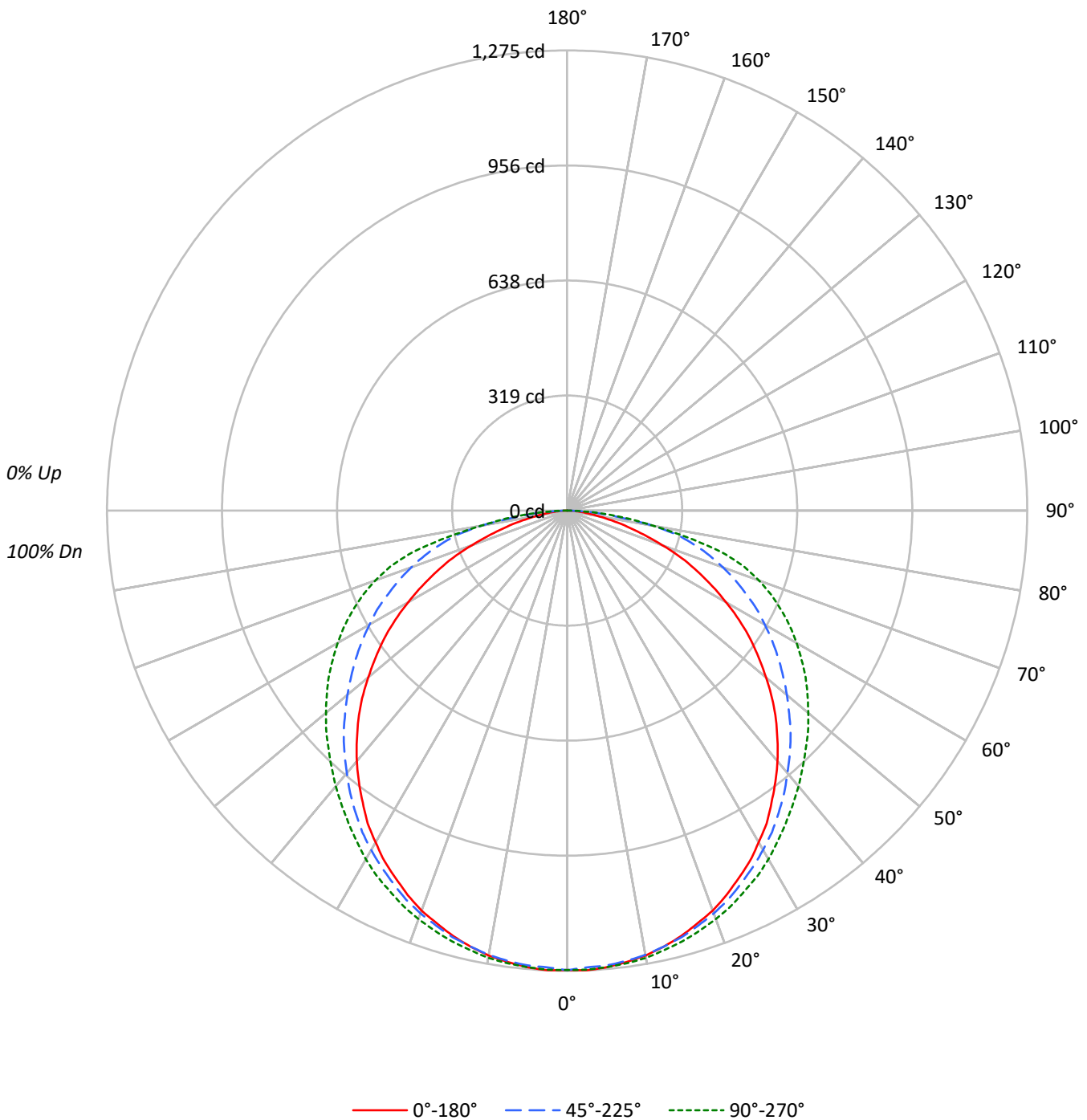
Lumens per Lamp: N/A  
Luminaire Lumens: 3924.2 lumens  
Efficiency: N/A  
Efficacy: 77.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 50.5  
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: P295058  
CATALOG NUMBER: 24CZ2-55-HRP-UNV-L950-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P295058

CATALOG NUMBER: 24CZ2-55-HRP-UNV-L950-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	98	94	105	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

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

	0°	45°	90°
0°	1713	1713	1713
5°	1715	1709	1715
10°	1710	1708	1719
15°	1700	1705	1721
20°	1689	1701	1724
25°	1668	1693	1727
30°	1649	1687	1733
35°	1622	1679	1735
40°	1593	1668	1751
45°	1557	1666	1779
50°	1506	1664	1826
55°	1453	1676	1892
60°	1371	1702	1976
65°	1266	1742	2087
70°	1105	1803	2223
75°	897	1896	2297
80°	662	1859	1859
85°	508	1369	1547



TEST NUMBER: P295058

CATALOG NUMBER: 24CZ2-55-HRP-UNV-L950-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.6	3.1
10°-20°	346.4	8.8
20°-30°	527.3	13.4
30°-40°	640.3	16.3
40°-50°	676.4	17.2
50°-60°	638.3	16.3
60°-70°	530.7	13.5
70°-80°	349.2	8.9
80°-90°	95.2	2.4
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°	994.3	25.3
0°-40°	1634.5	41.7
0°-60°	2949.2	75.2
0°-90°	3924.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3924.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1273	1273	1273	1273	1273	
5°	1270	1270	1265	1270	1270	121
15°	1221	1222	1224	1235	1235	344
25°	1124	1130	1140	1160	1163	518
35°	987	999	1022	1048	1056	618
45°	818	835	876	918	935	630
55°	619	646	715	782	807	552
65°	398	444	547	628	656	393
75°	172	251	365	432	442	186
85°	33	72	89	99	100	40
90°	0	0	0	0	0	



TEST NUMBER: P295058

CATALOG NUMBER: 24CZ2-55-HRP-UNV-L950-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1273.2	1273.2	1273.2	1273.2	1273.2
2.5°	1274.9	1273.2	1266.6	1273.2	1273.2
5°	1269.9	1269.9	1265.0	1269.9	1269.9
7.5°	1261.7	1261.7	1258.4	1265.0	1265.0
10°	1251.9	1251.9	1250.2	1258.4	1258.4
12.5°	1237.1	1238.7	1237.1	1246.9	1246.9
15°	1220.6	1222.3	1223.9	1235.4	1235.4
17.5°	1199.3	1202.6	1205.9	1219.0	1220.6
20°	1179.6	1181.2	1187.8	1202.6	1204.2
22.5°	1153.3	1158.2	1166.4	1181.2	1186.1
25°	1123.7	1130.3	1140.1	1159.9	1163.1
27.5°	1095.8	1100.7	1113.9	1135.2	1141.8
30°	1061.3	1069.5	1085.9	1107.3	1115.5
32.5°	1028.4	1036.6	1056.4	1079.4	1085.9
35°	987.4	998.9	1021.9	1048.1	1056.4
37.5°	947.9	959.4	987.4	1016.9	1026.8
40°	906.9	920.0	949.6	984.1	997.2
42.5°	862.5	880.6	913.4	951.2	966.0
45°	818.1	834.6	875.6	918.4	934.8
47.5°	770.5	790.2	834.6	885.5	905.2
50°	719.6	744.2	795.1	851.0	872.4
52.5°	668.6	696.6	754.1	816.5	839.5
55°	619.4	645.6	714.6	782.0	806.6
57.5°	565.1	598.0	673.6	745.9	770.5
60°	509.3	545.4	632.5	708.1	734.4
62.5°	453.4	494.5	593.1	668.6	696.6
65°	397.6	443.6	547.1	627.6	655.5
67.5°	343.4	394.3	504.4	584.9	612.8
70°	280.9	345.0	458.4	537.2	565.1
72.5°	223.4	297.4	414.0	487.9	512.6
75°	172.5	251.4	364.7	432.1	441.9
77.5°	126.5	205.4	313.8	336.8	338.4
80°	85.4	164.3	239.9	236.6	239.9
82.5°	55.9	123.2	151.1	169.2	170.9
85°	32.9	72.3	88.7	98.6	100.2
87.5°	16.4	24.6	31.2	32.9	36.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)