

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: P274832

Luminaire Tested: **24CZ2-65HE-RDP-UNV-L935-CD1-U**

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: P274832  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65HE-RDP-UNV-L935-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (392) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3748.0 lumens  
Efficiency: N/A  
Efficacy: 76.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

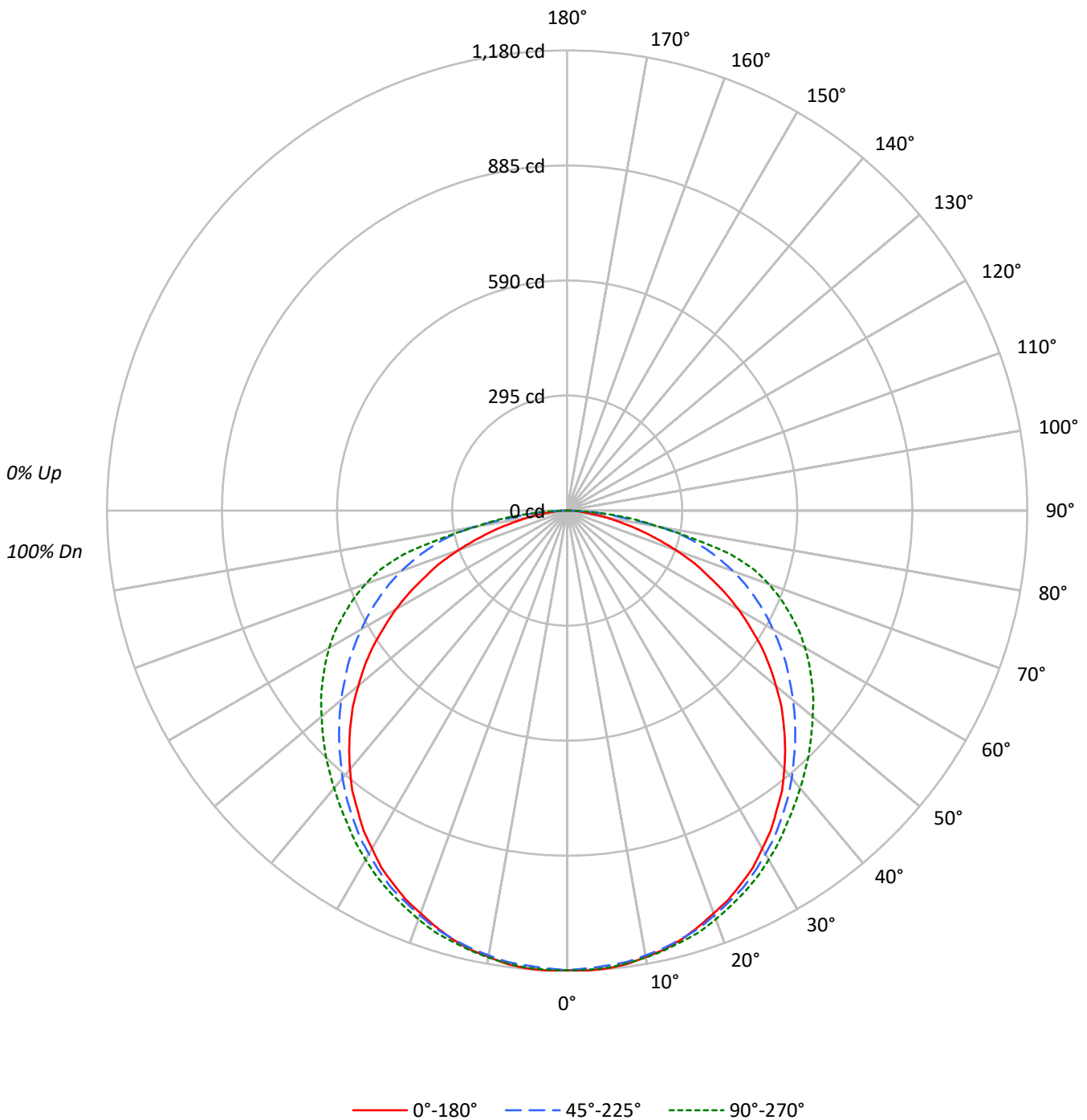
Input Watts (W): 48.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274832

CATALOG NUMBER: 24CZ2-65HE-RDP-UNV-L935-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P274832

CATALOG NUMBER: 24CZ2-65HE-RDP-UNV-L935-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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1586	1586	1586
5°	1592	1582	1589
10°	1587	1582	1590
15°	1585	1582	1593
20°	1573	1581	1597
25°	1568	1584	1601
30°	1554	1580	1606
35°	1539	1576	1612
40°	1522	1574	1633
45°	1496	1574	1670
50°	1463	1584	1720
55°	1426	1609	1797
60°	1366	1641	1896
65°	1279	1699	2012
70°	1163	1777	2165
75°	986	1875	2261
80°	778	1887	1829
85°	574	1436	1607



TEST NUMBER: P274832

CATALOG NUMBER: 24CZ2-65HE-RDP-UNV-L935-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.8	3.0
10°-20°	321.8	8.6
20°-30°	492.1	13.1
30°-40°	601.5	16.0
40°-50°	641.1	17.1
50°-60°	613.0	16.4
60°-70°	519.3	13.9
70°-80°	349.0	9.3
80°-90°	98.4	2.6
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°	925.6	24.7
0°-40°	1527.2	40.7
0°-60°	2781.3	74.2
0°-90°	3748.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3748.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1179	1177	1171	1177	1177	112
15°	1138	1138	1136	1145	1143	321
25°	1056	1060	1067	1076	1078	487
35°	937	944	959	978	982	587
45°	786	799	827	863	878	607
55°	608	630	686	740	766	541
65°	402	442	534	604	632	399
75°	190	258	361	422	435	203
85°	37	76	93	100	104	46
90°	0	0	0	0	0	



TEST NUMBER: P274832

CATALOG NUMBER: 24CZ2-65HE-RDP-UNV-L935-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1178.6	1178.6	1178.6	1178.6	1178.6
2.5°	1180.5	1180.5	1174.9	1178.6	1178.6
5°	1178.6	1176.8	1171.2	1176.8	1176.8
7.5°	1173.1	1171.2	1167.5	1173.1	1171.2
10°	1161.9	1161.9	1158.2	1163.8	1163.8
12.5°	1152.6	1150.8	1148.9	1156.3	1154.5
15°	1137.7	1137.7	1135.9	1145.2	1143.3
17.5°	1119.1	1121.0	1122.9	1130.3	1132.2
20°	1098.7	1102.4	1104.3	1115.4	1115.4
22.5°	1080.1	1082.0	1085.7	1096.8	1096.8
25°	1055.9	1059.7	1067.1	1076.4	1078.3
27.5°	1031.8	1033.6	1042.9	1055.9	1057.8
30°	1000.2	1005.7	1016.9	1031.8	1033.6
32.5°	972.3	977.9	990.9	1005.7	1009.5
35°	937.0	944.4	959.3	977.9	981.6
37.5°	905.4	910.9	929.5	950.0	955.6
40°	866.3	877.5	896.1	920.2	929.5
42.5°	827.3	838.4	860.7	892.3	903.5
45°	786.4	799.4	827.3	862.6	877.5
47.5°	745.5	760.4	792.0	832.9	849.6
50°	699.0	717.6	756.6	803.1	821.7
52.5°	654.4	676.7	719.5	771.5	795.7
55°	607.9	630.2	686.0	739.9	765.9
57.5°	555.9	585.6	647.0	708.3	736.2
60°	507.5	535.4	609.8	676.7	704.6
62.5°	455.5	492.6	572.6	643.2	671.1
65°	401.6	442.5	533.5	604.2	632.1
67.5°	353.2	397.8	494.5	565.2	593.0
70°	295.6	351.4	451.7	522.4	550.3
72.5°	241.7	303.0	407.1	475.9	501.9
75°	189.6	258.4	360.7	422.0	435.0
77.5°	141.3	213.8	312.3	338.3	329.1
80°	100.4	171.0	243.5	230.5	236.1
82.5°	65.1	130.1	150.6	171.0	176.6
85°	37.2	76.2	93.0	100.4	104.1
87.5°	16.7	27.9	37.2	37.2	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)