

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: P474777

Luminaire Tested: **22CZ2-50VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474777  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-50VHE-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4908.8 lumens  
Efficiency: N/A  
Efficacy: 140.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

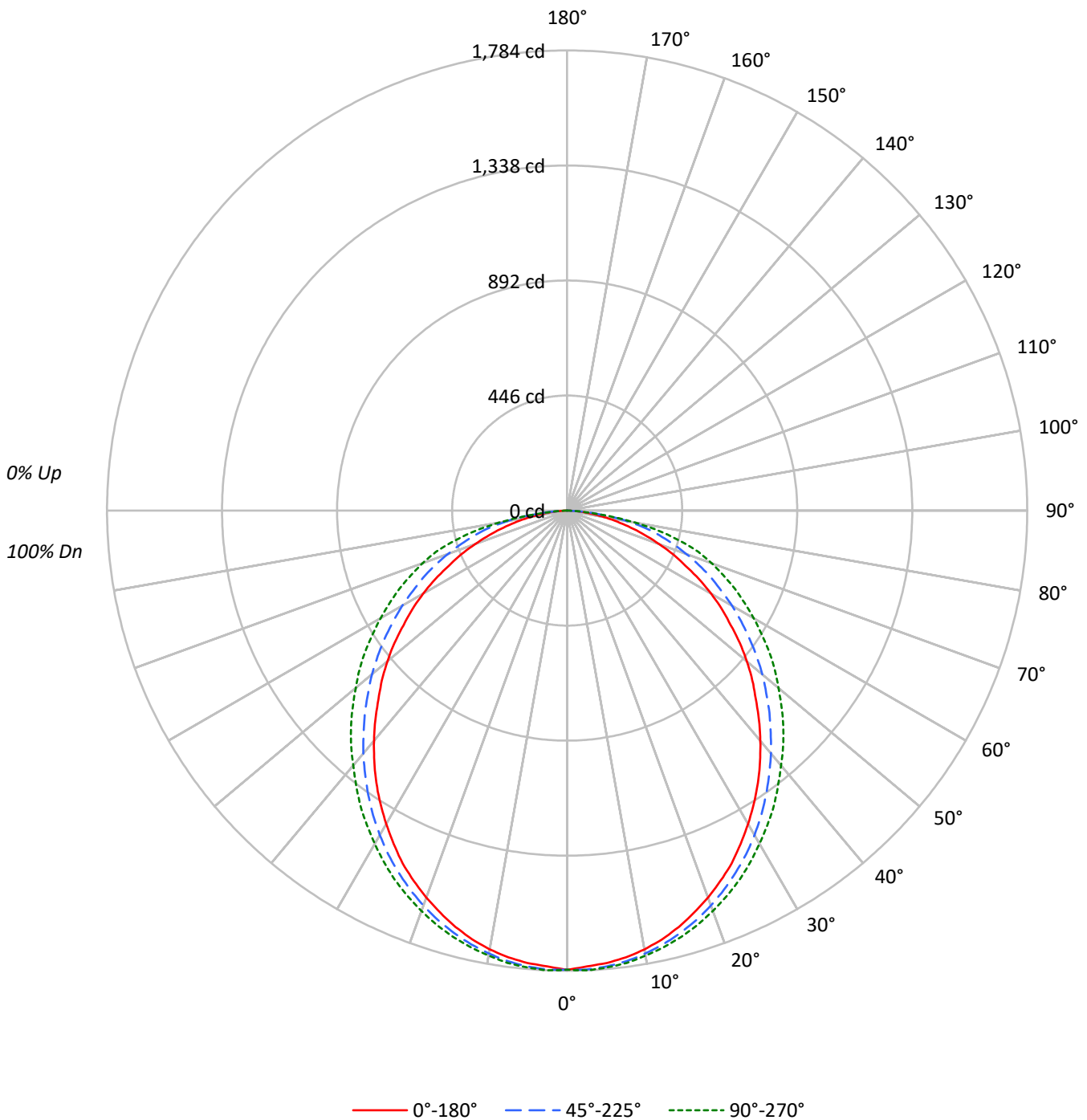
Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	4790	4790	4790
5°	4756	4792	4803
10°	4720	4765	4788
15°	4656	4722	4766
20°	4572	4667	4729
25°	4482	4596	4691
30°	4358	4513	4635
35°	4236	4417	4591
40°	4092	4318	4533
45°	3936	4220	4512
50°	3809	4135	4478
55°	3631	4045	4487
60°	3467	3975	4500
65°	3223	3924	4571
70°	2979	3869	4685
75°	2664	3851	4713
80°	2235	3649	4116
85°	1729	2498	2337



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	168.2	3.4
10°-20°	477.4	9.7
20°-30°	711.9	14.5
30°-40°	840.4	17.1
40°-50°	856.5	17.4
50°-60°	772.4	15.7
60°-70°	607.1	12.4
70°-80°	380.1	7.7
80°-90°	94.8	1.9
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°	1357.5	27.7
0°-40°	2197.9	44.8
0°-60°	3826.8	78.0
0°-90°	4908.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4908.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1780	1780	1780	1780	1780	
5°	1760	1765	1774	1778	1778	167
15°	1671	1678	1695	1708	1711	471
25°	1509	1521	1548	1572	1580	694
35°	1290	1306	1344	1382	1397	806
45°	1034	1057	1109	1163	1186	800
55°	774	798	862	928	956	695
65°	506	537	616	685	718	505
75°	256	295	370	437	453	272
85°	56	72	81	81	76	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1780.2	1780.2	1780.2	1780.2	1780.2
2.5°	1768.8	1772.9	1781.2	1784.3	1784.3
5°	1760.5	1764.6	1773.9	1778.1	1778.1
7.5°	1747.0	1751.1	1762.5	1767.7	1768.8
10°	1727.3	1732.5	1743.9	1752.2	1752.2
12.5°	1702.4	1707.6	1722.1	1732.5	1733.5
15°	1671.2	1678.5	1695.1	1707.6	1710.7
17.5°	1634.9	1646.3	1665.0	1680.6	1683.7
20°	1596.6	1608.0	1629.7	1647.4	1651.5
22.5°	1554.0	1564.4	1590.3	1612.1	1617.3
25°	1509.4	1520.8	1547.8	1571.7	1580.0
27.5°	1456.5	1470.0	1502.1	1529.1	1537.4
30°	1402.6	1419.2	1452.4	1482.4	1491.8
32.5°	1347.6	1363.1	1400.5	1432.6	1445.1
35°	1289.5	1306.1	1344.5	1381.8	1397.4
37.5°	1228.3	1244.9	1286.4	1328.9	1343.4
40°	1165.0	1184.7	1229.3	1275.0	1290.5
42.5°	1100.7	1121.4	1168.1	1218.9	1239.7
45°	1034.3	1057.1	1109.0	1162.9	1185.7
47.5°	974.1	992.8	1046.7	1105.9	1127.6
50°	909.8	927.4	987.6	1046.7	1069.6
52.5°	844.4	861.0	925.4	987.6	1015.6
55°	773.9	797.8	862.1	928.5	956.5
57.5°	711.7	733.4	799.8	867.3	894.2
60°	644.2	667.0	738.6	807.1	836.1
62.5°	576.8	601.7	674.3	748.0	774.9
65°	506.2	537.4	616.2	684.7	717.9
67.5°	446.1	476.2	554.0	625.5	654.6
70°	378.6	413.9	491.7	564.3	595.5
72.5°	315.4	350.6	430.5	503.1	534.3
75°	256.2	294.6	370.4	436.7	453.3
77.5°	199.2	235.5	311.2	349.6	367.2
80°	144.2	179.5	235.5	261.4	265.6
82.5°	97.5	127.6	159.8	167.0	162.9
85°	56.0	71.6	80.9	80.9	75.7
87.5°	22.8	22.8	19.7	12.4	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)