

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: P474185

Luminaire Tested: **24CZ2-45VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474185  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45VHE-RDP-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP  
INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2945.0 lumens  
Efficiency: N/A  
Efficacy: 95.9 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

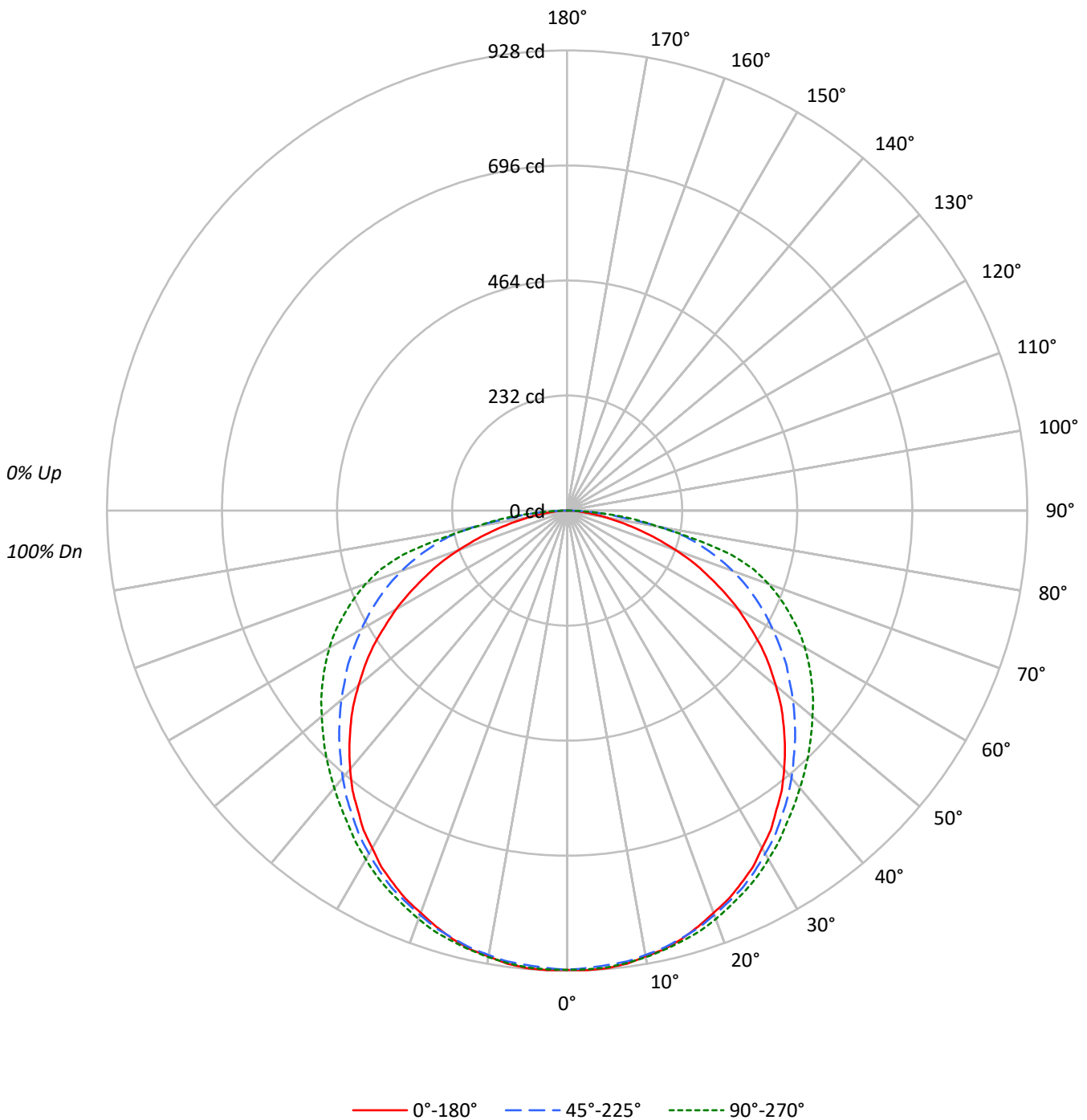
Input Watts (W): 30.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1246	1246	1246
5°	1251	1243	1249
10°	1247	1243	1249
15°	1245	1243	1251
20°	1236	1242	1255
25°	1232	1245	1258
30°	1221	1241	1262
35°	1209	1238	1267
40°	1196	1237	1283
45°	1176	1237	1312
50°	1150	1245	1352
55°	1120	1264	1412
60°	1073	1289	1490
65°	1004	1335	1581
70°	913	1397	1701
75°	774	1473	1777
80°	611	1482	1437
85°	451	1129	1263



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.9	3.0
10°-20°	252.8	8.6
20°-30°	386.6	13.1
30°-40°	472.6	16.0
40°-50°	503.8	17.1
50°-60°	481.7	16.4
60°-70°	408.0	13.9
70°-80°	274.2	9.3
80°-90°	77.4	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°	727.3	24.7
0°-40°	1200.0	40.7
0°-60°	2185.4	74.2
0°-90°	2945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2945.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	926	925	920	925	925	88
15°	894	894	893	900	898	252
25°	830	833	838	846	847	382
35°	736	742	754	768	771	461
45°	618	628	650	678	689	477
55°	478	495	539	581	602	425
65°	316	348	419	475	497	313
75°	149	203	283	332	342	160
85°	29	60	73	79	82	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	926.2	926.2	926.2	926.2	926.2
2.5°	927.6	927.6	923.3	926.2	926.2
5°	926.2	924.7	920.3	924.7	924.7
7.5°	921.8	920.3	917.4	921.8	920.3
10°	913.0	913.0	910.1	914.5	914.5
12.5°	905.7	904.3	902.8	908.6	907.2
15°	894.0	894.0	892.6	899.9	898.4
17.5°	879.4	880.9	882.3	888.2	889.6
20°	863.3	866.3	867.7	876.5	876.5
22.5°	848.7	850.2	853.1	861.9	861.9
25°	829.7	832.6	838.5	845.8	847.3
27.5°	810.7	812.2	819.5	829.7	831.2
30°	785.9	790.3	799.0	810.7	812.2
32.5°	764.0	768.3	778.6	790.3	793.2
35°	736.2	742.0	753.7	768.3	771.3
37.5°	711.3	715.7	730.3	746.4	750.8
40°	680.8	689.4	704.0	723.0	730.3
42.5°	650.1	658.9	676.4	701.1	709.9
45°	617.9	628.2	650.1	677.9	689.4
47.5°	585.8	597.5	622.3	654.5	667.6
50°	549.3	563.9	594.6	631.1	645.7
52.5°	514.2	531.7	565.3	606.3	625.3
55°	477.6	495.2	539.0	581.4	601.9
57.5°	436.7	460.1	508.3	556.6	578.5
60°	398.9	420.6	479.1	531.7	553.6
62.5°	357.9	387.2	449.9	505.4	527.3
65°	315.5	347.7	419.2	474.7	496.6
67.5°	277.5	312.6	388.6	444.0	465.9
70°	232.2	276.1	355.0	410.4	432.3
72.5°	189.9	238.1	319.9	374.0	394.5
75°	148.9	203.0	283.4	331.6	341.9
77.5°	111.1	167.9	245.4	265.9	258.5
80°	78.9	134.5	191.3	181.1	185.5
82.5°	51.2	102.3	118.4	134.5	138.7
85°	29.2	59.9	73.1	78.9	81.8
87.5°	13.2	21.9	29.2	29.2	27.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)