

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: P475153

Luminaire Tested: **22CZ2-44VHE-HRP-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475153  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44VHE-HRP-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3571.4 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

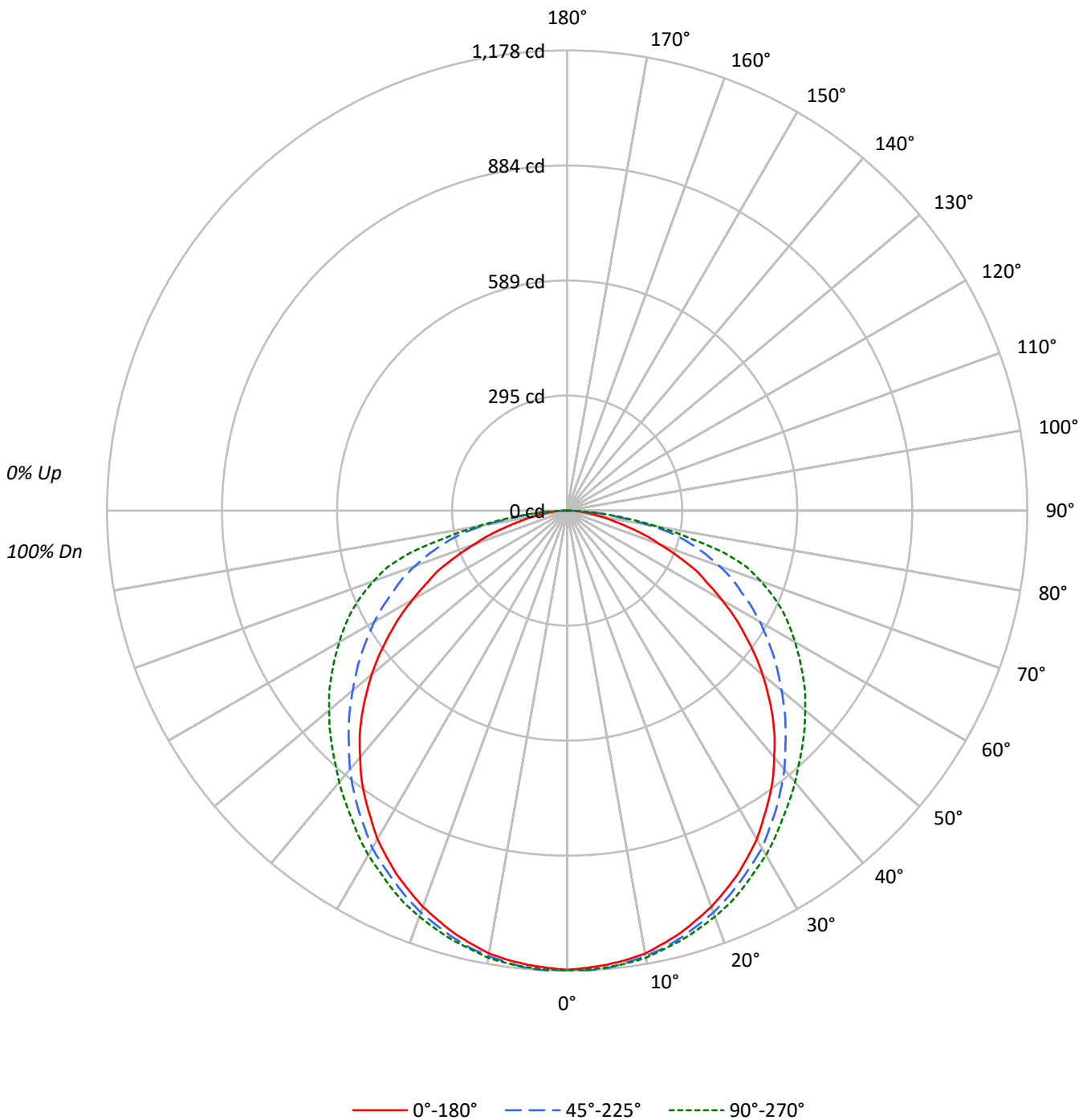
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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	25	35	29	24	23

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

	0°	45°	90°
0°	3164	3164	3164
5°	3152	3176	3171
10°	3146	3164	3177
15°	3119	3151	3170
20°	3090	3136	3168
25°	3057	3110	3164
30°	3017	3101	3164
35°	2960	3064	3160
40°	2896	3039	3189
45°	2829	3010	3241
50°	2735	2999	3329
55°	2610	3023	3456
60°	2461	3068	3626
65°	2324	3128	3874
70°	1985	3261	4148
75°	1664	3398	4310
80°	1364	3281	3595
85°	1179	2433	2643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.5	3.1
10°-20°	318.8	8.9
20°-30°	483.2	13.5
30°-40°	583.5	16.3
40°-50°	613.1	17.2
50°-60°	576.8	16.2
60°-70°	481.0	13.5
70°-80°	318.7	8.9
80°-90°	84.9	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°	913.5	25.6
0°-40°	1496.9	41.9
0°-60°	2686.8	75.2
0°-90°	3571.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3571.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1167	1169	1176	1176	1174	111
15°	1120	1124	1131	1136	1138	316
25°	1030	1036	1048	1061	1066	474
35°	901	910	933	953	962	563
45°	744	755	791	831	852	573
55°	556	581	644	710	737	498
65°	365	396	491	572	608	355
75°	160	223	327	394	414	174
85°	38	58	79	86	86	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1175.9	1175.9	1175.9	1175.9	1175.9
2.5°	1171.6	1173.8	1178.4	1178.4	1175.9
5°	1167.0	1169.2	1175.9	1175.9	1173.8
7.5°	1160.2	1162.6	1167.0	1171.6	1169.2
10°	1151.3	1153.5	1158.0	1162.6	1162.6
12.5°	1135.6	1137.7	1146.7	1149.1	1149.1
15°	1119.6	1124.2	1131.0	1135.6	1137.7
17.5°	1099.5	1103.9	1112.9	1122.0	1122.0
20°	1079.2	1083.6	1095.0	1103.9	1106.1
22.5°	1054.4	1061.1	1072.5	1083.6	1088.2
25°	1029.7	1036.5	1047.6	1061.1	1065.7
27.5°	1000.2	1007.0	1022.9	1038.6	1040.8
30°	971.0	977.7	998.0	1011.6	1018.3
32.5°	935.0	943.9	964.2	984.5	991.3
35°	901.1	910.3	932.8	953.1	962.0
37.5°	865.1	874.0	898.9	923.8	935.0
40°	824.5	835.8	865.1	892.2	907.9
42.5°	786.3	797.6	826.9	862.9	878.6
45°	743.5	754.6	790.9	831.3	851.6
47.5°	698.3	711.9	754.6	804.4	824.5
50°	653.4	669.1	716.4	772.8	795.2
52.5°	606.0	626.3	680.4	741.3	768.2
55°	556.4	581.3	644.4	709.7	736.7
57.5°	509.1	531.8	606.0	675.8	705.1
60°	457.3	486.6	570.0	642.0	673.7
62.5°	407.8	439.4	531.8	608.4	642.0
65°	365.0	396.4	491.2	572.1	608.4
67.5°	308.7	351.5	457.3	533.9	570.0
70°	252.3	310.9	414.5	493.3	527.2
72.5°	209.6	265.9	371.8	450.6	482.2
75°	160.0	223.1	326.8	394.2	414.5
77.5°	119.4	184.7	279.4	313.3	315.4
80°	88.0	141.9	211.7	223.1	232.0
82.5°	60.9	99.1	137.5	150.8	155.4
85°	38.2	58.5	78.8	85.6	85.6
87.5°	20.3	22.5	27.1	27.1	27.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)