

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: P475119

Luminaire Tested: **22CZ2-44HE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475119  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-44HE-HRP-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3570.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 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

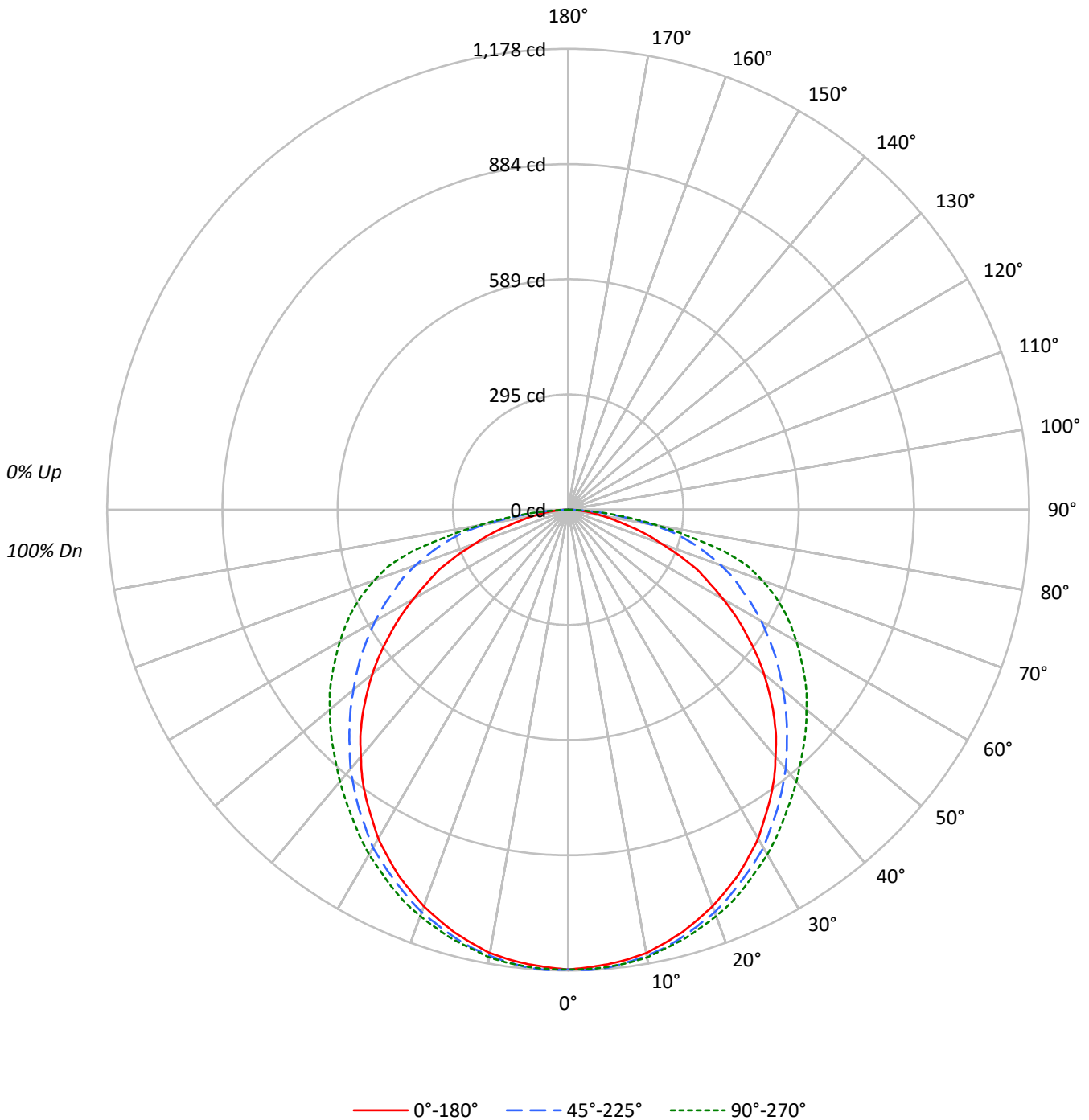
Input Watts (W): 32.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3163	3163	3163
5°	3151	3175	3169
10°	3145	3163	3175
15°	3118	3149	3168
20°	3089	3134	3166
25°	3056	3109	3163
30°	3016	3100	3163
35°	2959	3063	3159
40°	2895	3038	3188
45°	2828	3008	3239
50°	2734	2998	3328
55°	2609	3022	3455
60°	2460	3066	3624
65°	2323	3126	3872
70°	1984	3260	4146
75°	1663	3396	4309
80°	1362	3281	3594
85°	1179	2433	2640



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.4	3.1
10°-20°	318.7	8.9
20°-30°	483.0	13.5
30°-40°	583.2	16.3
40°-50°	612.8	17.2
50°-60°	576.6	16.2
60°-70°	480.7	13.5
70°-80°	318.6	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°	913.1	25.6
0°-40°	1496.3	41.9
0°-60°	2685.7	75.2
0°-90°	3570.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3570.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1166	1169	1176	1176	1173	111
15°	1119	1124	1130	1135	1137	316
25°	1029	1036	1047	1061	1065	474
35°	901	910	932	953	962	563
45°	743	754	790	831	851	572
55°	556	581	644	709	736	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°	1175.5	1175.5	1175.5	1175.5	1175.5
2.5°	1171.1	1173.3	1177.9	1177.9	1175.5
5°	1166.5	1168.7	1175.5	1175.5	1173.3
7.5°	1159.7	1162.1	1166.5	1171.1	1168.7
10°	1150.8	1153.0	1157.6	1162.1	1162.1
12.5°	1135.1	1137.3	1146.2	1148.6	1148.6
15°	1119.2	1123.7	1130.5	1135.1	1137.3
17.5°	1099.1	1103.5	1112.4	1121.6	1121.6
20°	1078.8	1083.2	1094.5	1103.5	1105.6
22.5°	1053.9	1060.7	1072.0	1083.2	1087.7
25°	1029.3	1036.0	1047.2	1060.7	1065.3
27.5°	999.8	1006.6	1022.5	1038.2	1040.4
30°	970.6	977.3	997.6	1011.2	1017.9
32.5°	934.6	943.5	963.8	984.1	990.9
35°	900.7	909.9	932.4	952.7	961.6
37.5°	864.7	873.7	898.6	923.4	934.6
40°	824.2	835.5	864.7	891.8	907.5
42.5°	786.0	797.3	826.6	862.6	878.3
45°	743.2	754.3	790.5	830.9	851.2
47.5°	698.0	711.6	754.3	804.1	824.2
50°	653.1	668.8	716.1	772.4	794.9
52.5°	605.7	626.0	680.1	741.0	767.9
55°	556.2	581.1	644.1	709.4	736.4
57.5°	508.8	531.5	605.7	675.6	704.8
60°	457.1	486.4	569.7	641.7	673.4
62.5°	407.6	439.2	531.5	608.1	641.7
65°	364.8	396.3	491.0	571.9	608.1
67.5°	308.5	351.3	457.1	533.7	569.7
70°	252.2	310.7	414.4	493.1	527.0
72.5°	209.5	265.8	371.6	450.4	482.0
75°	159.9	223.0	326.6	394.1	414.4
77.5°	119.4	184.6	279.3	313.1	315.3
80°	87.9	141.8	211.7	223.0	231.9
82.5°	60.9	99.1	137.5	150.8	155.4
85°	38.2	58.5	78.8	85.5	85.5
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)