

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: P475124

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475124  
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-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY 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: 3446.4 lumens  
Efficiency: N/A  
Efficacy: 114.1 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

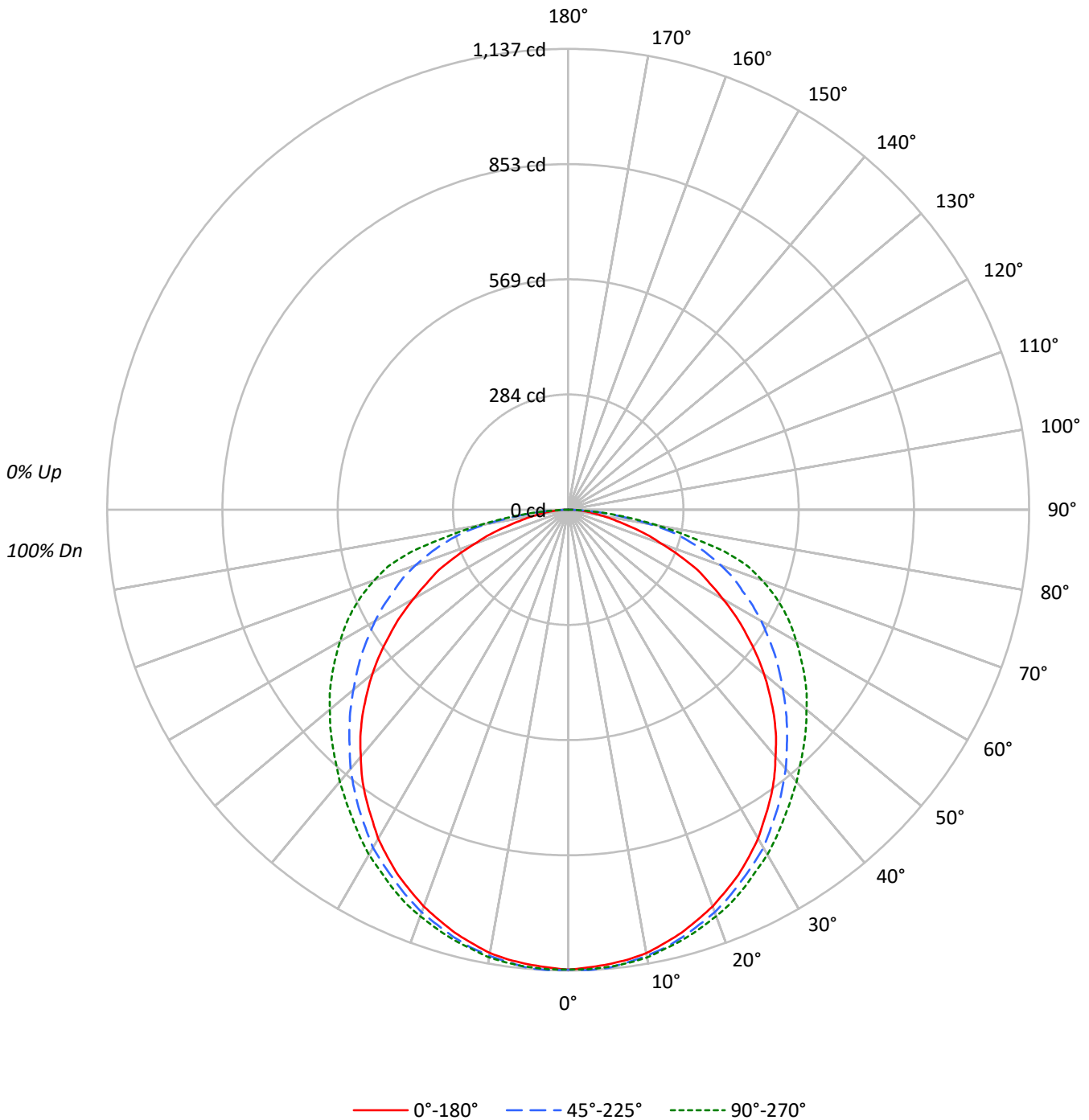
Input Watts (W): 30.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3054	3054	3054
5°	3042	3065	3060
10°	3036	3054	3066
15°	3010	3041	3059
20°	2983	3026	3057
25°	2950	3002	3053
30°	2912	2993	3054
35°	2857	2957	3050
40°	2795	2933	3078
45°	2731	2904	3127
50°	2640	2894	3213
55°	2519	2917	3336
60°	2375	2960	3499
65°	2243	3018	3738
70°	1916	3147	4002
75°	1605	3278	4159
80°	1316	3166	3470
85°	1139	2347	2550



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.6	3.1
10°-20°	307.7	8.9
20°-30°	466.3	13.5
30°-40°	563.0	16.3
40°-50°	591.6	17.2
50°-60°	556.7	16.2
60°-70°	464.1	13.5
70°-80°	307.5	8.9
80°-90°	82.0	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°	881.5	25.6
0°-40°	1444.6	41.9
0°-60°	2592.8	75.2
0°-90°	3446.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3446.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1126	1128	1135	1135	1133	107
15°	1080	1085	1091	1096	1098	305
25°	994	1000	1011	1024	1028	457
35°	870	878	900	920	928	544
45°	718	728	763	802	822	553
55°	537	561	622	685	711	480
65°	352	382	474	552	587	343
75°	154	215	315	380	400	168
85°	37	56	76	83	83	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1134.8	1134.8	1134.8	1134.8	1134.8
2.5°	1130.6	1132.7	1137.1	1137.1	1134.8
5°	1126.2	1128.3	1134.8	1134.8	1132.7
7.5°	1119.6	1121.9	1126.2	1130.6	1128.3
10°	1111.0	1113.1	1117.5	1121.9	1121.9
12.5°	1095.8	1097.9	1106.6	1108.9	1108.9
15°	1080.4	1084.9	1091.4	1095.8	1097.9
17.5°	1061.1	1065.3	1073.9	1082.8	1082.8
20°	1041.5	1045.7	1056.6	1065.3	1067.4
22.5°	1017.5	1024.0	1034.9	1045.7	1050.1
25°	993.7	1000.2	1010.9	1024.0	1028.4
27.5°	965.2	971.7	987.1	1002.3	1004.4
30°	937.0	943.5	963.1	976.2	982.7
32.5°	902.2	910.9	930.5	950.0	956.6
35°	869.6	878.4	900.1	919.7	928.4
37.5°	834.8	843.5	867.5	891.5	902.2
40°	795.6	806.6	834.8	860.9	876.1
42.5°	758.8	769.7	798.0	832.7	847.9
45°	717.5	728.2	763.2	802.2	821.8
47.5°	673.9	686.9	728.2	776.3	795.6
50°	630.5	645.7	691.4	745.7	767.4
52.5°	584.8	604.4	656.6	715.4	741.3
55°	537.0	561.0	621.8	684.8	711.0
57.5°	491.2	513.2	584.8	652.2	680.4
60°	441.3	469.5	550.0	619.5	650.1
62.5°	393.5	424.0	513.2	587.1	619.5
65°	352.2	382.5	474.0	552.1	587.1
67.5°	297.9	339.2	441.3	515.3	550.0
70°	243.5	300.0	400.0	476.1	508.7
72.5°	202.2	256.6	358.7	434.8	465.3
75°	154.4	215.3	315.3	380.4	400.0
77.5°	115.2	178.2	269.6	302.3	304.4
80°	84.9	136.9	204.3	215.3	223.9
82.5°	58.8	95.6	132.7	145.6	150.0
85°	36.9	56.5	76.0	82.6	82.6
87.5°	19.6	21.7	26.1	26.1	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)