

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: P475004

Luminaire Tested: **22CZ2-20VHE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475004  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20VHE-RDP-UNV-L830-CD1-U  
Description: 2'X2' 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: 1316.4 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

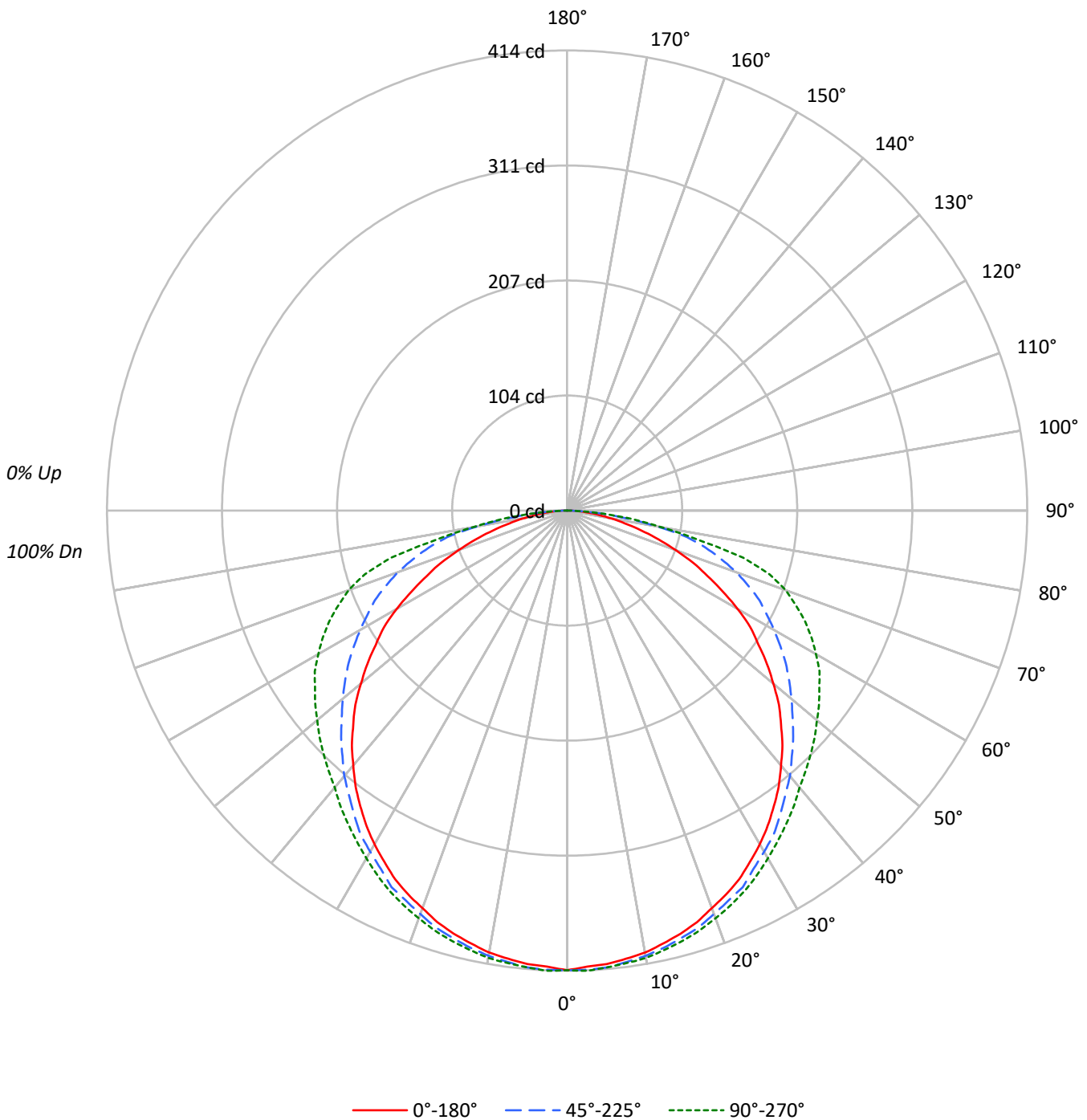
Input Watts (W): 13.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89		92	89	86		88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72		80	75	71		76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60		70	64	59		67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50		61	55	50		59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33		45	38	33		44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29		41	34	29		40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26		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°	1113	1113	1113
5°	1106	1114	1114
10°	1103	1111	1117
15°	1098	1109	1117
20°	1090	1106	1118
25°	1087	1110	1121
30°	1077	1101	1122
35°	1066	1098	1129
40°	1051	1095	1143
45°	1036	1094	1179
50°	1014	1103	1228
55°	986	1127	1299
60°	954	1157	1392
65°	888	1215	1505
70°	815	1273	1646
75°	715	1339	1702
80°	615	1275	1336
85°	537	926	1016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	3.0
10°-20°	112.3	8.5
20°-30°	171.3	13.0
30°-40°	209.2	15.9
40°-50°	223.7	17.0
50°-60°	215.9	16.4
60°-70°	185.9	14.1
70°-80°	125.8	9.6
80°-90°	33.2	2.5
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°	322.8	24.5
0°-40°	532.0	40.4
0°-60°	971.6	73.8
0°-90°	1316.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1316.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	414	414	414	414	414	
5°	410	411	412	412	412	39
15°	394	395	398	400	401	111
25°	366	368	374	376	378	168
35°	324	327	334	341	344	203
45°	272	277	288	302	310	210
55°	210	217	240	264	277	188
65°	139	153	191	221	236	139
75°	69	91	129	155	164	74
85°	17	24	30	31	33	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	413.5	413.5	413.5	413.5	413.5
2.5°	410.6	411.6	413.5	413.5	414.4
5°	409.6	410.6	412.5	412.5	412.5
7.5°	406.7	407.7	409.6	410.6	410.6
10°	403.8	404.8	406.7	407.7	408.7
12.5°	399.0	399.9	402.8	404.8	404.8
15°	394.1	395.1	398.0	399.9	400.9
17.5°	388.3	390.3	393.2	395.1	396.1
20°	380.6	382.5	386.3	389.3	390.3
22.5°	373.8	375.8	379.6	382.5	384.4
25°	366.0	368.0	373.8	375.8	377.7
27.5°	356.3	358.3	363.2	367.0	369.9
30°	346.7	348.6	354.4	359.3	361.2
32.5°	336.0	338.9	345.7	349.6	352.5
35°	324.4	327.3	334.1	340.8	343.8
37.5°	312.8	315.7	322.5	331.2	335.1
40°	299.3	303.1	311.8	323.4	325.3
42.5°	286.7	291.5	299.3	312.8	317.6
45°	272.1	276.9	287.6	302.2	309.8
47.5°	258.6	263.4	275.0	292.4	302.2
50°	242.1	248.8	263.4	283.8	293.4
52.5°	226.6	232.4	251.8	274.1	285.7
55°	210.2	216.9	240.2	264.3	276.9
57.5°	195.6	201.4	227.6	254.7	269.2
60°	177.2	184.9	215.0	244.0	258.6
62.5°	157.8	169.5	202.4	232.4	247.9
65°	139.4	153.0	190.8	220.7	236.3
67.5°	123.0	137.5	176.3	208.2	222.8
70°	103.6	122.0	161.8	192.7	209.2
72.5°	86.2	106.5	145.3	176.3	190.8
75°	68.8	91.0	128.8	154.9	163.7
77.5°	53.2	74.6	110.4	118.2	119.1
80°	39.7	59.1	82.3	83.2	86.2
82.5°	27.1	41.7	53.2	58.1	59.1
85°	17.4	24.2	30.0	31.0	32.9
87.5°	7.8	8.8	10.7	9.7	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)