

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: P474772

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474772  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-20VHE-UNV-L830-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

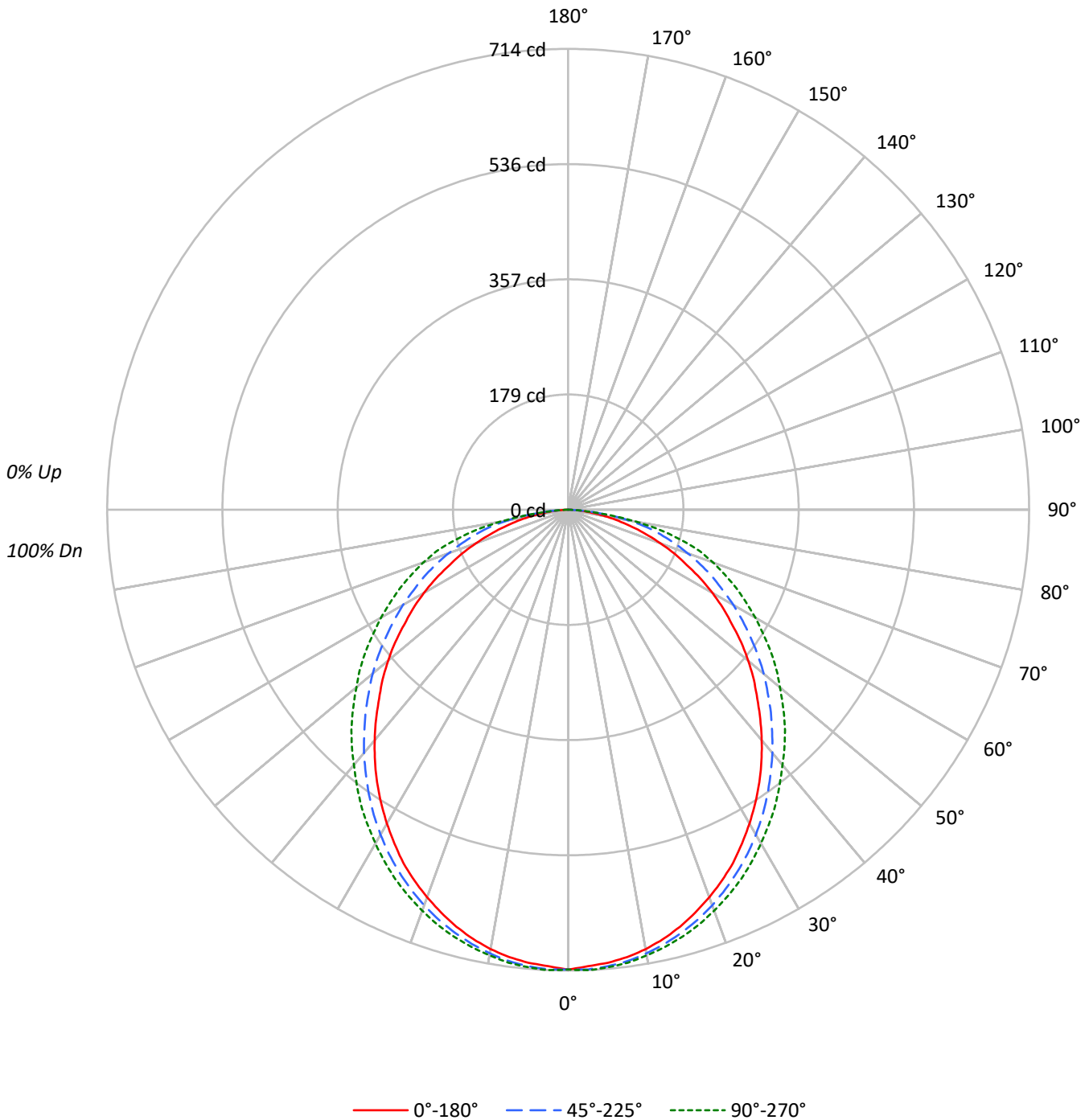
Lumens per Lamp: N/A  
Luminaire Lumens: 1964.6 lumens  
Efficiency: N/A  
Efficacy: 142.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	1917	1917	1917
5°	1903	1918	1922
10°	1889	1907	1916
15°	1863	1890	1908
20°	1830	1868	1893
25°	1794	1839	1878
30°	1744	1806	1855
35°	1695	1768	1837
40°	1638	1728	1814
45°	1576	1689	1806
50°	1524	1655	1792
55°	1453	1619	1796
60°	1387	1591	1801
65°	1290	1570	1829
70°	1192	1548	1875
75°	1067	1541	1886
80°	894	1461	1647
85°	692	1000	936



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.3	3.4
10°-20°	191.1	9.7
20°-30°	284.9	14.5
30°-40°	336.4	17.1
40°-50°	342.8	17.4
50°-60°	309.1	15.7
60°-70°	243.0	12.4
70°-80°	152.1	7.7
80°-90°	37.9	1.9
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°	543.3	27.7
0°-40°	879.7	44.8
0°-60°	1531.6	78.0
0°-90°	1964.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1964.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	705	706	710	712	712	67
15°	669	672	678	683	685	188
25°	604	609	620	629	632	278
35°	516	523	538	553	559	322
45°	414	423	444	465	475	320
55°	310	319	345	372	383	278
65°	203	215	247	274	287	202
75°	103	118	148	175	181	109
85°	22	29	32	32	30	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	712.5	712.5	712.5	712.5	712.5
2.5°	707.9	709.6	712.9	714.1	714.1
5°	704.6	706.3	710.0	711.7	711.7
7.5°	699.2	700.9	705.4	707.5	707.9
10°	691.3	693.4	698.0	701.3	701.3
12.5°	681.3	683.4	689.2	693.4	693.8
15°	668.9	671.8	678.4	683.4	684.7
17.5°	654.4	658.9	666.4	672.6	673.9
20°	639.0	643.6	652.3	659.3	661.0
22.5°	622.0	626.1	636.5	645.2	647.3
25°	604.1	608.7	619.5	629.0	632.4
27.5°	582.9	588.3	601.2	612.0	615.3
30°	561.4	568.0	581.3	593.3	597.1
32.5°	539.3	545.6	560.5	573.4	578.4
35°	516.1	522.7	538.1	553.1	559.3
37.5°	491.6	498.2	514.9	531.9	537.7
40°	466.3	474.2	492.0	510.3	516.5
42.5°	440.5	448.8	467.5	487.9	496.2
45°	414.0	423.1	443.9	465.4	474.6
47.5°	389.9	397.3	418.9	442.6	451.3
50°	364.1	371.2	395.3	418.9	428.1
52.5°	338.0	344.6	370.4	395.3	406.5
55°	309.7	319.3	345.0	371.6	382.8
57.5°	284.8	293.5	320.1	347.1	357.9
60°	257.8	267.0	295.6	323.0	334.7
62.5°	230.9	240.8	269.9	299.4	310.2
65°	202.6	215.1	246.6	274.0	287.3
67.5°	178.5	190.6	221.7	250.4	262.0
70°	151.5	165.7	196.8	225.9	238.3
72.5°	126.2	140.3	172.3	201.4	213.8
75°	102.6	117.9	148.2	174.8	181.4
77.5°	79.7	94.3	124.6	139.9	147.0
80°	57.7	71.8	94.3	104.6	106.3
82.5°	39.0	51.1	63.9	66.8	65.2
85°	22.4	28.6	32.4	32.4	30.3
87.5°	9.1	9.1	7.9	5.0	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)