

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: P474779

Luminaire Tested: **22CZ2-60VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474779  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-60VHE-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**

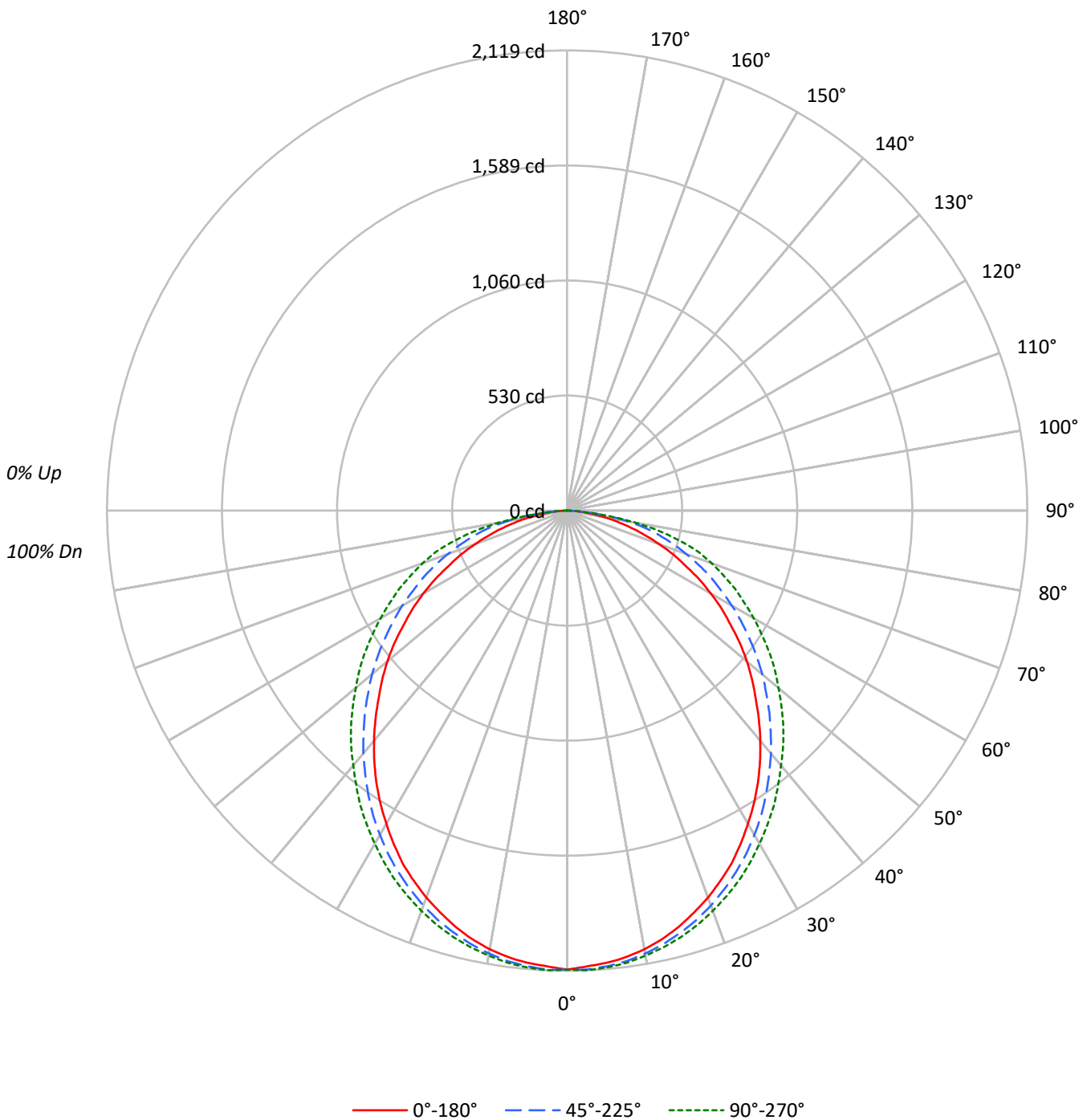
Lumens per Lamp: N/A  
Luminaire Lumens: 5829.3 lumens  
Efficiency: N/A  
Efficacy: 138.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 42.1  
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°	5689	5689	5689
5°	5647	5690	5704
10°	5605	5659	5686
15°	5529	5608	5660
20°	5430	5542	5617
25°	5322	5458	5571
30°	5175	5359	5505
35°	5030	5245	5451
40°	4860	5128	5383
45°	4674	5012	5359
50°	4523	4910	5317
55°	4312	4803	5329
60°	4117	4721	5344
65°	3828	4660	5428
70°	3538	4594	5563
75°	3164	4573	5598
80°	2653	4334	4888
85°	2053	2967	2776



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	199.7	3.4
10°-20°	567.0	9.7
20°-30°	845.4	14.5
30°-40°	998.0	17.1
40°-50°	1017.1	17.4
50°-60°	917.2	15.7
60°-70°	721.0	12.4
70°-80°	451.4	7.7
80°-90°	112.5	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°	1612.1	27.7
0°-40°	2610.1	44.8
0°-60°	4544.4	78.0
0°-90°	5829.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5829.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2114	2114	2114	2114	2114	
5°	2091	2096	2107	2112	2112	198
15°	1985	1993	2013	2028	2032	559
25°	1792	1806	1838	1866	1876	824
35°	1531	1551	1597	1641	1659	957
45°	1228	1255	1317	1381	1408	950
55°	919	947	1024	1103	1136	825
65°	601	638	732	813	852	599
75°	304	350	440	519	538	323
85°	66	85	96	96	90	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2114.0	2114.0	2114.0	2114.0	2114.0
2.5°	2100.5	2105.4	2115.3	2118.9	2118.9
5°	2090.6	2095.5	2106.6	2111.6	2111.6
7.5°	2074.6	2079.5	2093.1	2099.2	2100.5
10°	2051.2	2057.3	2070.9	2080.8	2080.8
12.5°	2021.6	2027.8	2045.0	2057.3	2058.6
15°	1984.7	1993.3	2013.0	2027.8	2031.5
17.5°	1941.5	1955.1	1977.3	1995.8	1999.4
20°	1896.0	1909.5	1935.4	1956.3	1961.3
22.5°	1845.5	1857.8	1888.6	1914.4	1920.6
25°	1792.5	1806.0	1838.1	1866.4	1876.3
27.5°	1729.7	1745.7	1783.9	1815.9	1825.7
30°	1665.6	1685.3	1724.7	1760.4	1771.5
32.5°	1600.3	1618.8	1663.1	1701.3	1716.1
35°	1531.3	1551.0	1596.6	1641.0	1659.4
37.5°	1458.6	1478.3	1527.6	1578.1	1595.4
40°	1383.5	1406.9	1459.9	1514.1	1532.5
42.5°	1307.1	1331.7	1387.2	1447.5	1472.2
45°	1228.2	1255.4	1316.9	1381.0	1408.1
47.5°	1156.8	1179.0	1243.0	1313.3	1339.1
50°	1080.4	1101.4	1172.8	1243.0	1270.1
52.5°	1002.8	1022.5	1098.9	1172.8	1206.1
55°	919.0	947.4	1023.7	1102.6	1135.9
57.5°	845.1	871.0	949.8	1029.9	1061.9
60°	765.0	792.1	877.1	958.5	992.9
62.5°	685.0	714.5	800.8	888.2	920.3
65°	601.2	638.1	731.8	813.1	852.5
67.5°	529.7	565.5	657.9	742.9	777.4
70°	449.7	491.5	583.9	670.2	707.1
72.5°	374.5	416.4	511.3	597.5	634.5
75°	304.3	349.9	439.8	518.6	538.4
77.5°	236.5	279.7	369.6	415.2	436.1
80°	171.2	213.1	279.7	310.5	315.4
82.5°	115.8	151.5	189.7	198.3	193.4
85°	66.5	85.0	96.1	96.1	89.9
87.5°	27.1	27.1	23.4	14.8	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)