

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: P475017

Luminaire Tested: **22CZ2-90VHE-RDP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475017  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-90VHE-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: 5812.6 lumens  
Efficiency: N/A  
Efficacy: 87.1 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

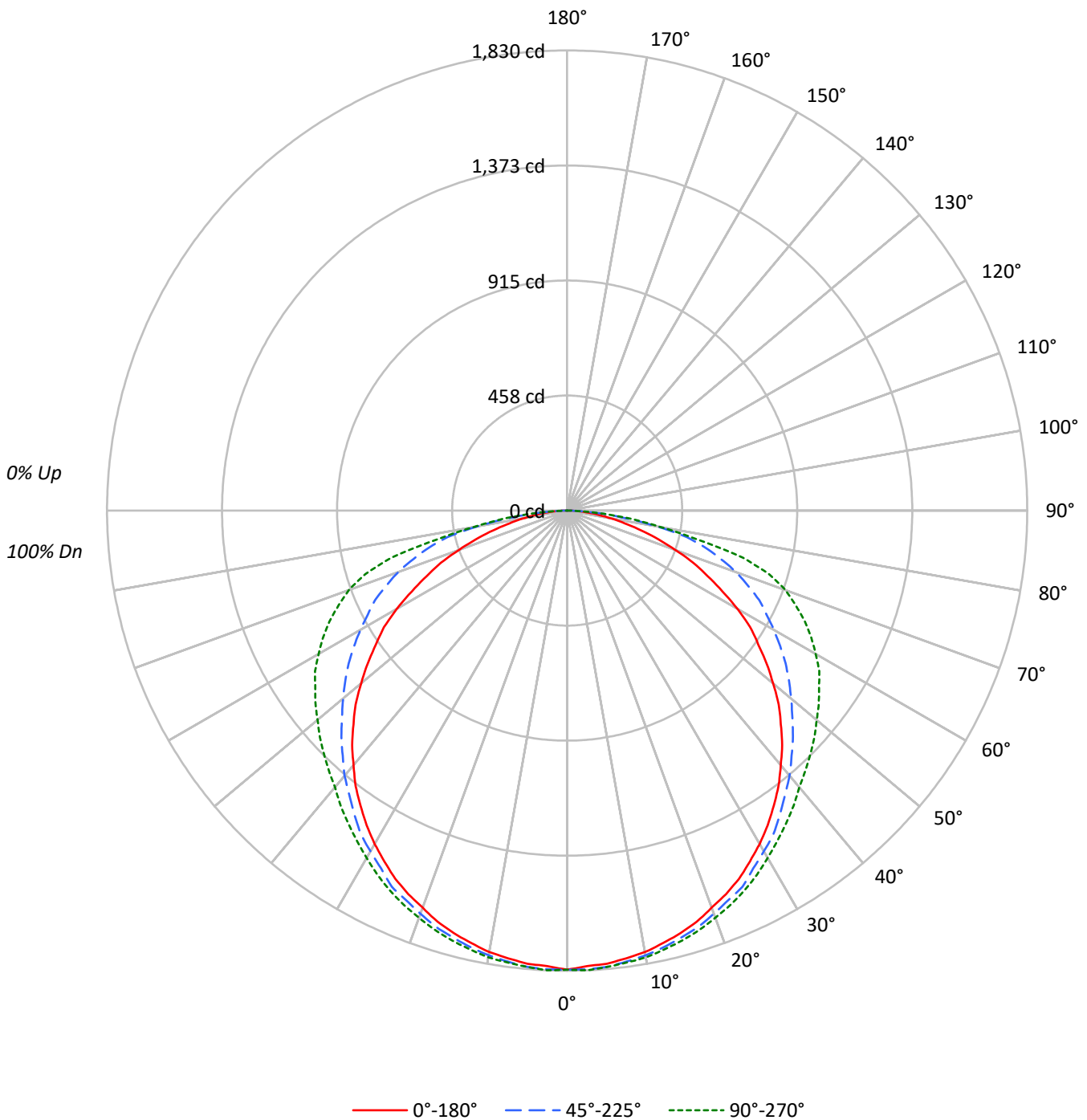
Input Watts (W): 66.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4913	4913	4913
5°	4886	4920	4920
10°	4871	4908	4931
15°	4848	4896	4931
20°	4812	4885	4935
25°	4799	4901	4952
30°	4757	4863	4956
35°	4705	4846	4987
40°	4642	4836	5047
45°	4573	4833	5206
50°	4475	4868	5424
55°	4354	4975	5737
60°	4212	5109	6145
65°	3920	5365	6644
70°	3600	5619	7268
75°	3159	5911	7514
80°	2720	5630	5900
85°	2374	4094	4486



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.7	3.0
10°-20°	495.9	8.5
20°-30°	756.6	13.0
30°-40°	923.8	15.9
40°-50°	987.7	17.0
50°-60°	953.4	16.4
60°-70°	820.7	14.1
70°-80°	555.3	9.6
80°-90°	146.6	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°	1425.2	24.5
0°-40°	2349.0	40.4
0°-60°	4290.1	73.8
0°-90°	5812.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5812.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1826	1826	1826	1826	1826	
5°	1809	1813	1822	1822	1822	172
15°	1740	1745	1757	1766	1770	491
25°	1616	1625	1651	1659	1668	744
35°	1432	1445	1475	1505	1518	896
45°	1202	1223	1270	1334	1368	928
55°	928	958	1060	1167	1223	832
65°	616	676	843	975	1044	612
75°	304	402	568	684	723	326
85°	77	107	133	137	145	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1825.7	1825.7	1825.7	1825.7	1825.7
2.5°	1813.0	1817.3	1825.7	1825.7	1830.0
5°	1808.8	1813.0	1821.5	1821.5	1821.5
7.5°	1796.0	1800.3	1808.8	1813.0	1813.0
10°	1782.8	1787.5	1796.0	1800.3	1804.5
12.5°	1761.6	1765.8	1778.6	1787.5	1787.5
15°	1740.3	1744.6	1757.3	1765.8	1770.1
17.5°	1714.4	1723.4	1736.1	1744.6	1748.8
20°	1680.4	1688.9	1705.9	1719.1	1723.4
22.5°	1650.7	1659.2	1676.2	1688.9	1697.4
25°	1616.3	1624.8	1650.7	1659.2	1667.7
27.5°	1573.4	1582.3	1603.5	1620.5	1633.3
30°	1530.9	1539.4	1564.9	1586.5	1595.0
32.5°	1483.7	1496.5	1526.6	1543.6	1556.4
35°	1432.3	1445.0	1475.2	1505.0	1518.1
37.5°	1381.3	1394.1	1423.8	1462.5	1479.5
40°	1321.4	1338.4	1376.6	1428.1	1436.6
42.5°	1265.7	1287.0	1321.4	1381.3	1402.6
45°	1201.6	1222.8	1270.0	1334.2	1368.1
47.5°	1141.7	1162.9	1214.3	1291.2	1334.2
50°	1069.0	1098.8	1162.9	1253.0	1295.5
52.5°	1000.6	1026.1	1111.9	1210.1	1261.5
55°	928.0	957.7	1060.5	1167.2	1222.8
57.5°	863.8	889.3	1004.9	1124.7	1188.8
60°	782.6	816.6	949.2	1077.5	1141.7
62.5°	696.8	748.2	893.5	1026.1	1094.5
65°	615.7	675.6	842.6	974.7	1043.5
67.5°	543.0	607.2	778.4	919.5	983.6
70°	457.6	538.8	714.2	851.1	923.7
72.5°	380.7	470.4	641.6	778.4	842.6
75°	303.8	401.9	568.5	684.1	722.7
77.5°	235.0	329.3	487.3	521.8	526.0
80°	175.5	260.9	363.3	367.5	380.7
82.5°	119.8	184.0	235.0	256.6	260.9
85°	76.9	107.1	132.6	136.8	145.3
87.5°	34.4	38.7	47.2	42.9	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)