

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: P474191

Luminaire Tested: **24CZ2-85VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474191  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-85VHE-RDP-UNV-L830-CD1-U  
Description: 2'X4' 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: 5490.6 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

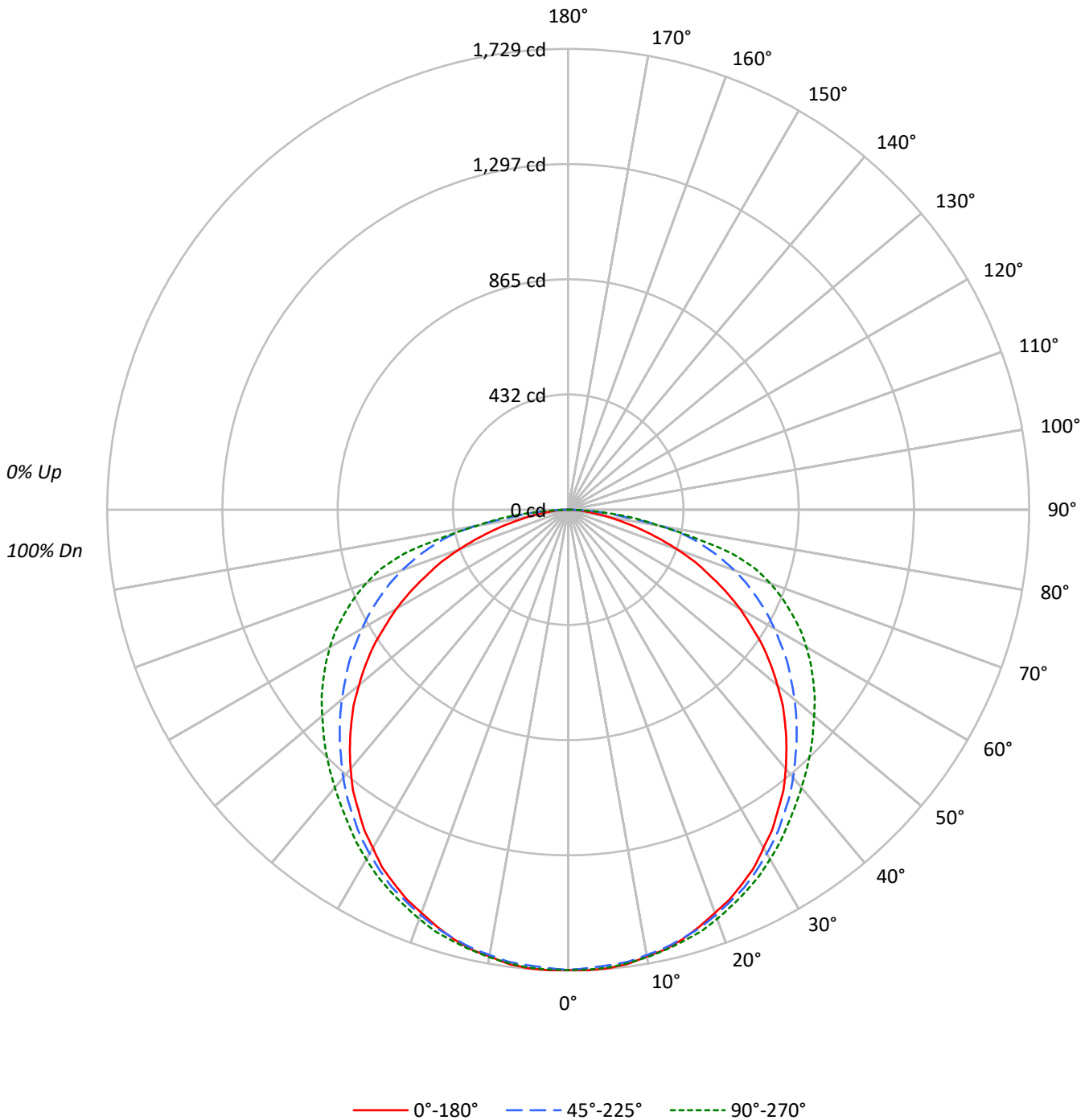
Input Watts (W): 59.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	89		92	89	87		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		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°	2323	2323	2323
5°	2332	2317	2328
10°	2326	2318	2329
15°	2322	2318	2333
20°	2305	2316	2340
25°	2297	2321	2345
30°	2276	2314	2353
35°	2254	2308	2362
40°	2229	2305	2392
45°	2192	2306	2446
50°	2143	2320	2520
55°	2089	2357	2632
60°	2001	2404	2778
65°	1873	2488	2948
70°	1703	2604	3171
75°	1444	2746	3313
80°	1140	2764	2679
85°	841	2103	2356



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.8	3.0
10°-20°	471.4	8.6
20°-30°	720.8	13.1
30°-40°	881.2	16.0
40°-50°	939.2	17.1
50°-60°	898.0	16.4
60°-70°	760.7	13.9
70°-80°	511.3	9.3
80°-90°	144.3	2.6
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°	1356.0	24.7
0°-40°	2237.2	40.7
0°-60°	4074.4	74.2
0°-90°	5490.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5490.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1727	1727	1727	1727	1727	
5°	1727	1724	1716	1724	1724	164
15°	1667	1667	1664	1678	1675	470
25°	1547	1552	1563	1577	1580	713
35°	1372	1383	1405	1432	1438	860
45°	1152	1171	1212	1264	1285	889
55°	890	923	1005	1084	1122	793
65°	588	648	782	885	926	584
75°	278	378	528	618	637	297
85°	54	112	136	147	153	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1726.7	1726.7	1726.7	1726.7	1726.7
2.5°	1729.4	1729.4	1721.3	1726.7	1726.7
5°	1726.7	1724.0	1715.8	1724.0	1724.0
7.5°	1718.5	1715.8	1710.4	1718.5	1715.8
10°	1702.2	1702.2	1696.7	1704.9	1704.9
12.5°	1688.6	1685.8	1683.1	1694.0	1691.3
15°	1666.8	1666.8	1664.0	1677.7	1674.9
17.5°	1639.5	1642.2	1645.0	1655.9	1658.6
20°	1609.5	1615.0	1617.7	1634.1	1634.1
22.5°	1582.3	1585.0	1590.5	1606.8	1606.8
25°	1546.9	1552.3	1563.2	1576.9	1579.6
27.5°	1511.5	1514.2	1527.8	1546.9	1549.6
30°	1465.1	1473.3	1489.7	1511.5	1514.2
32.5°	1424.3	1432.4	1451.5	1473.3	1478.8
35°	1372.5	1383.4	1405.2	1432.4	1437.9
37.5°	1326.2	1334.3	1361.6	1391.6	1399.7
40°	1269.2	1285.3	1312.5	1348.0	1361.6
42.5°	1212.0	1228.3	1261.0	1307.1	1323.4
45°	1152.1	1171.1	1212.0	1263.8	1285.3
47.5°	1092.1	1113.9	1160.2	1220.2	1244.7
50°	1024.0	1051.2	1108.5	1176.6	1203.8
52.5°	958.6	991.3	1054.0	1130.3	1165.7
55°	890.5	923.2	1004.9	1083.9	1122.1
57.5°	814.2	857.8	947.7	1037.6	1078.5
60°	743.6	784.2	893.2	991.3	1032.2
62.5°	667.3	721.8	838.7	942.2	983.1
65°	588.3	648.2	781.5	885.0	925.9
67.5°	517.4	582.8	724.5	827.8	868.7
70°	433.0	514.7	661.9	765.1	806.0
72.5°	354.0	443.9	596.5	697.3	735.4
75°	277.7	378.5	528.3	618.3	637.3
77.5°	207.1	313.1	457.5	495.6	482.0
80°	147.1	250.7	356.7	337.6	345.8
82.5°	95.4	190.7	220.7	250.7	258.6
85°	54.5	111.7	136.2	147.1	152.6
87.5°	24.5	40.9	54.5	54.5	51.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)