

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: P473986

Luminaire Tested: **24CZ2-55VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473986  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-S-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5417.6 lumens  
Efficiency: N/A  
Efficacy: 146.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

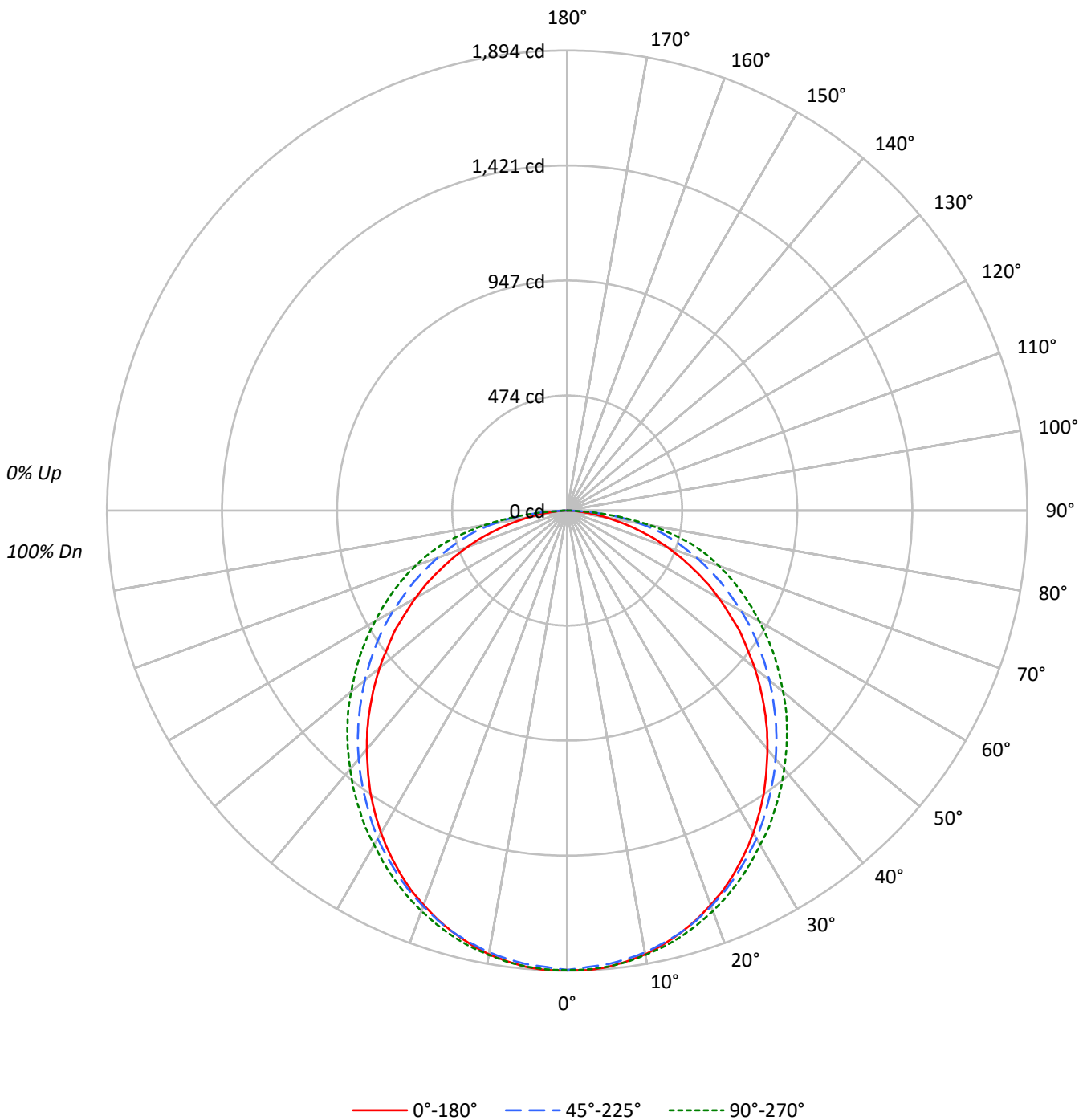
Input Watts (W): 37.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2544	2544	2544
5°	2548	2532	2546
10°	2534	2523	2537
15°	2508	2506	2528
20°	2473	2481	2511
25°	2432	2453	2492
30°	2381	2422	2468
35°	2321	2380	2454
40°	2252	2344	2440
45°	2184	2308	2435
50°	2110	2276	2429
55°	2035	2248	2442
60°	1942	2227	2459
65°	1839	2218	2519
70°	1715	2230	2608
75°	1527	2295	2748
80°	1248	2345	2682
85°	880	2047	2089



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.8	3.3
10°-20°	509.2	9.4
20°-30°	763.2	14.1
30°-40°	909.0	16.8
40°-50°	937.3	17.3
50°-60°	855.3	15.8
60°-70°	683.9	12.6
70°-80°	446.7	8.2
80°-90°	134.1	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°	1451.2	26.8
0°-40°	2360.2	43.6
0°-60°	4152.8	76.7
0°-90°	5417.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5417.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1891	1891	1891	1891	1891	
5°	1886	1883	1875	1886	1885	179
15°	1800	1801	1799	1814	1814	507
25°	1638	1641	1652	1676	1678	754
35°	1413	1423	1449	1485	1494	883
45°	1148	1168	1213	1264	1280	885
55°	868	892	958	1022	1041	773
65°	578	617	697	765	791	573
75°	294	343	441	513	529	312
85°	57	102	133	135	135	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1891.0	1891.0	1891.0	1891.0	1891.0
2.5°	1893.7	1891.0	1881.2	1892.8	1891.0
5°	1886.5	1883.0	1875.0	1886.5	1884.8
7.5°	1872.3	1870.5	1862.5	1875.9	1874.1
10°	1854.5	1852.7	1846.5	1859.8	1857.2
12.5°	1829.6	1828.7	1824.3	1840.3	1838.5
15°	1800.2	1801.1	1799.3	1814.5	1814.5
17.5°	1766.4	1765.5	1769.1	1787.8	1786.0
20°	1727.3	1728.1	1732.6	1754.0	1754.0
22.5°	1686.3	1685.4	1695.2	1716.6	1718.4
25°	1638.3	1640.9	1652.5	1676.5	1678.3
27.5°	1586.7	1591.1	1605.3	1632.9	1635.6
30°	1532.4	1537.7	1559.1	1584.9	1588.4
32.5°	1472.8	1484.3	1503.9	1536.8	1545.7
35°	1413.1	1422.9	1448.7	1485.2	1494.1
37.5°	1347.3	1363.3	1392.7	1432.7	1444.3
40°	1282.3	1298.3	1334.8	1376.6	1389.1
42.5°	1216.5	1233.4	1275.2	1322.4	1335.7
45°	1147.9	1168.4	1212.9	1263.6	1279.6
47.5°	1077.6	1101.7	1149.7	1204.9	1222.7
50°	1008.2	1032.3	1087.4	1144.4	1160.4
52.5°	933.5	963.7	1022.5	1083.9	1099.9
55°	867.6	892.5	958.4	1021.6	1041.2
57.5°	790.2	824.0	894.3	958.4	977.1
60°	721.7	752.8	827.6	892.5	913.9
62.5°	652.3	684.3	759.1	832.9	852.5
65°	577.5	616.7	696.8	765.3	791.1
67.5°	506.3	547.3	629.1	702.1	728.8
70°	436.0	477.9	566.9	641.6	663.0
72.5°	366.6	410.2	502.8	575.8	600.7
75°	293.7	342.6	441.4	512.6	528.6
77.5°	225.1	279.4	379.1	427.1	438.7
80°	161.1	220.7	302.6	337.3	346.2
82.5°	105.9	163.7	226.0	244.7	242.0
85°	57.0	102.3	132.6	135.3	135.3
87.5°	22.2	40.9	41.8	32.0	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)