

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: P473936

Luminaire Tested: **24CZ2-55VHE-UNV-L850-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473936  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55VHE-UNV-L850-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

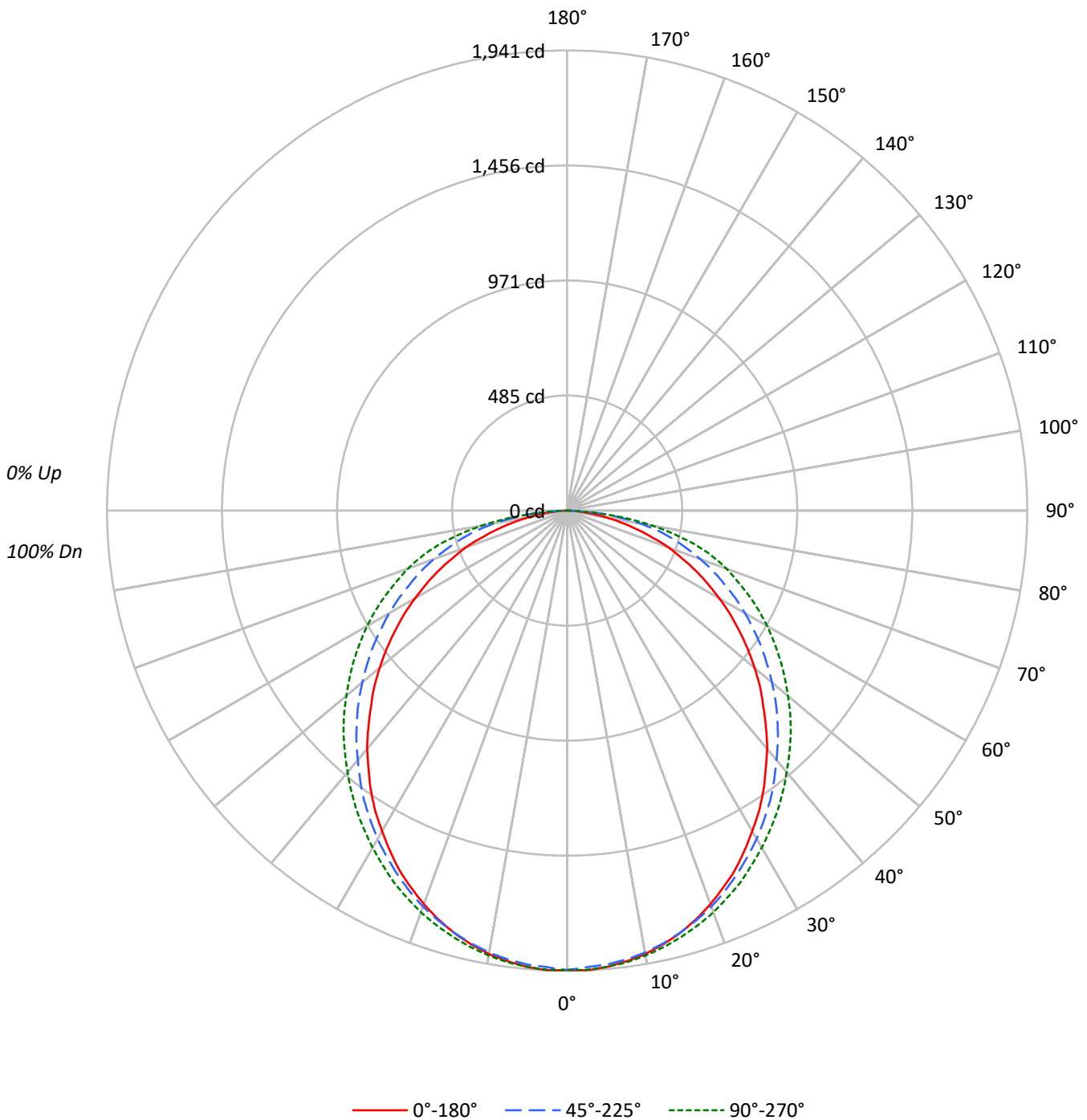
Lumens per Lamp: N/A  
Luminaire Lumens: 5608.5 lumens  
Efficiency: N/A  
Efficacy: 151.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	2608	2608	2608
5°	2609	2596	2609
10°	2595	2586	2603
15°	2568	2567	2592
20°	2530	2545	2582
25°	2486	2514	2569
30°	2426	2485	2551
35°	2371	2453	2541
40°	2306	2413	2530
45°	2227	2388	2538
50°	2160	2361	2545
55°	2081	2344	2574
60°	1995	2333	2621
65°	1901	2325	2689
70°	1789	2349	2812
75°	1573	2398	2925
80°	1313	2415	2822
85°	937	2070	2098



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.2	3.3
10°-20°	521.9	9.3
20°-30°	782.9	14.0
30°-40°	934.7	16.7
40°-50°	968.2	17.3
50°-60°	891.3	15.9
60°-70°	719.0	12.8
70°-80°	469.7	8.4
80°-90°	137.7	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°	1487.9	26.5
0°-40°	2422.6	43.2
0°-60°	4282.0	76.3
0°-90°	5608.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5608.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1938	1938	1938	1938	1938	
5°	1932	1930	1922	1933	1932	183
15°	1844	1844	1843	1861	1861	520
25°	1674	1678	1693	1724	1731	770
35°	1443	1456	1493	1534	1547	902
45°	1171	1200	1255	1311	1334	905
55°	887	925	999	1073	1097	794
65°	597	638	730	814	844	590
75°	303	360	461	541	563	323
85°	61	105	134	142	136	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1938.1	1938.1	1938.1	1938.1	1938.1
2.5°	1940.8	1938.1	1928.1	1939.9	1939.0
5°	1931.7	1929.9	1921.8	1932.6	1931.7
7.5°	1917.2	1916.3	1910.0	1921.8	1921.8
10°	1899.1	1897.3	1892.8	1906.4	1905.5
12.5°	1873.8	1872.8	1870.1	1886.4	1885.5
15°	1843.9	1843.9	1842.9	1861.1	1861.1
17.5°	1807.6	1808.5	1812.1	1833.0	1833.9
20°	1766.8	1770.5	1777.7	1801.3	1803.1
22.5°	1720.6	1727.9	1737.8	1764.1	1766.8
25°	1674.4	1678.0	1693.4	1724.3	1730.6
27.5°	1618.2	1627.3	1647.2	1678.9	1685.3
30°	1561.2	1573.8	1599.2	1631.8	1641.8
32.5°	1505.0	1515.9	1545.8	1582.9	1594.7
35°	1443.4	1456.1	1493.2	1534.0	1546.7
37.5°	1375.4	1395.3	1434.3	1481.4	1495.0
40°	1312.9	1331.0	1373.6	1426.2	1440.7
42.5°	1241.3	1264.0	1315.6	1369.1	1387.2
45°	1170.6	1199.6	1254.9	1311.1	1333.7
47.5°	1104.5	1128.1	1193.3	1256.7	1276.7
50°	1032.0	1059.2	1128.1	1195.1	1215.9
52.5°	960.4	993.1	1062.8	1133.5	1156.1
55°	887.0	925.1	999.4	1072.8	1097.3
57.5°	816.4	854.4	931.4	1009.4	1034.7
60°	741.2	781.9	867.1	942.3	974.0
62.5°	668.7	709.5	799.2	880.7	910.6
65°	597.1	637.9	730.3	813.7	844.5
67.5°	522.8	567.2	666.0	746.6	776.5
70°	454.8	497.4	597.1	683.2	714.9
72.5°	376.9	427.7	529.1	614.3	644.2
75°	302.6	359.7	461.2	540.9	562.7
77.5°	233.8	290.8	392.3	452.1	465.7
80°	169.4	227.4	311.7	353.4	364.2
82.5°	109.6	169.4	225.6	253.7	257.3
85°	60.7	105.1	134.1	142.3	135.9
87.5°	21.7	39.9	39.0	31.7	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)