

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: P474439

Luminaire Tested: **24CZ2-75VHE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474439  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75VHE-HRP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP  
INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6067.0 lumens  
Efficiency: N/A  
Efficacy: 118.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

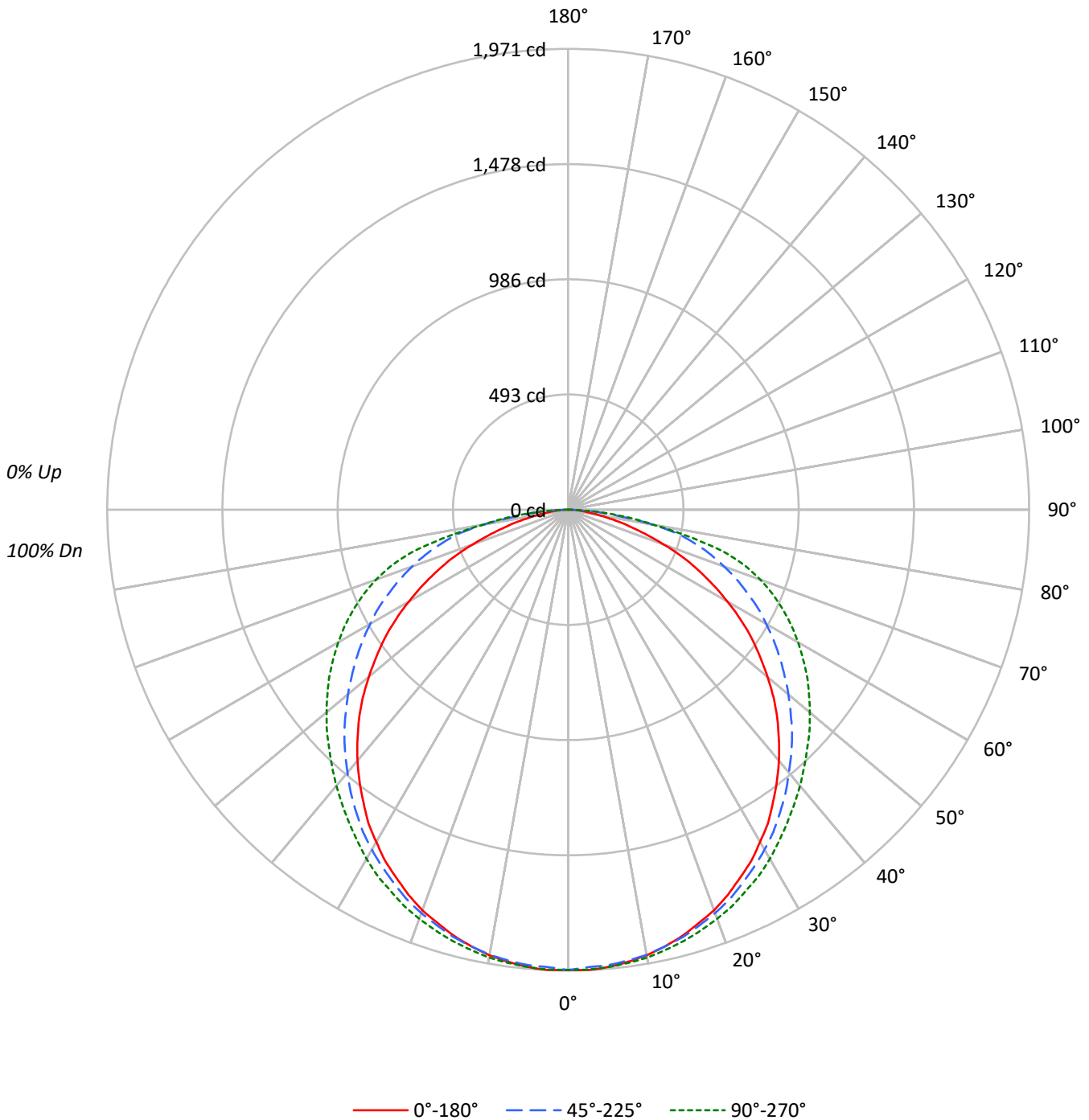
Input Watts (W): 51.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

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

	0°	45°	90°
0°	2648	2648	2648
5°	2652	2641	2652
10°	2644	2641	2658
15°	2629	2636	2661
20°	2611	2629	2666
25°	2579	2617	2670
30°	2549	2608	2680
35°	2508	2595	2683
40°	2462	2579	2708
45°	2407	2576	2750
50°	2329	2573	2823
55°	2246	2592	2925
60°	2119	2631	3055
65°	1957	2693	3227
70°	1709	2787	3437
75°	1386	2931	3552
80°	1024	2875	2875
85°	784	2117	2390



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	186.5	3.1
10°-20°	535.5	8.8
20°-30°	815.2	13.4
30°-40°	989.8	16.3
40°-50°	1045.8	17.2
50°-60°	986.8	16.3
60°-70°	820.5	13.5
70°-80°	539.8	8.9
80°-90°	147.1	2.4
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°	1537.1	25.3
0°-40°	2527.0	41.7
0°-60°	4559.6	75.2
0°-90°	6067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6067.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1968	1968	1968	1968	1968	
5°	1964	1964	1956	1964	1964	186
15°	1887	1890	1892	1910	1910	532
25°	1737	1747	1763	1793	1798	801
35°	1527	1544	1580	1620	1633	956
45°	1265	1290	1354	1420	1445	974
55°	958	998	1105	1209	1247	853
65°	615	686	846	970	1014	608
75°	267	389	564	668	683	287
85°	51	112	137	152	155	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1968.4	1968.4	1968.4	1968.4	1968.4
2.5°	1971.0	1968.4	1958.2	1968.4	1968.4
5°	1963.5	1963.5	1955.6	1963.5	1963.5
7.5°	1950.7	1950.7	1945.5	1955.6	1955.6
10°	1935.3	1935.3	1933.0	1945.5	1945.5
12.5°	1912.6	1915.0	1912.6	1927.7	1927.7
15°	1887.1	1889.7	1892.3	1910.0	1910.0
17.5°	1854.2	1859.2	1864.4	1884.5	1887.1
20°	1823.7	1826.1	1836.3	1859.2	1861.8
22.5°	1783.1	1790.6	1803.4	1826.1	1833.9
25°	1737.2	1747.4	1762.7	1793.2	1798.2
27.5°	1694.2	1701.7	1722.1	1755.2	1765.3
30°	1640.7	1653.5	1678.8	1711.9	1724.7
32.5°	1589.9	1602.7	1633.2	1668.6	1678.8
35°	1526.6	1544.3	1579.7	1620.4	1633.2
37.5°	1465.6	1483.3	1526.6	1572.2	1587.6
40°	1402.0	1422.3	1468.2	1521.3	1541.7
42.5°	1333.4	1361.3	1412.1	1470.5	1493.5
45°	1264.8	1290.4	1353.7	1419.7	1445.2
47.5°	1191.3	1221.8	1290.4	1369.1	1399.6
50°	1112.6	1150.7	1229.4	1315.7	1348.8
52.5°	1033.9	1076.9	1165.8	1262.2	1297.9
55°	957.5	998.2	1104.8	1209.0	1247.1
57.5°	873.8	924.6	1041.4	1153.0	1191.3
60°	787.3	843.3	977.8	1094.6	1135.3
62.5°	701.0	764.6	916.8	1033.9	1076.9
65°	614.7	685.9	845.9	970.3	1013.5
67.5°	530.8	609.5	779.7	904.3	947.3
70°	434.3	533.4	708.5	830.5	873.8
72.5°	345.4	459.8	640.0	754.4	792.5
75°	266.7	388.7	563.9	667.9	683.2
77.5°	195.5	317.5	485.1	520.6	523.2
80°	132.2	253.9	371.0	365.7	371.0
82.5°	86.3	190.6	233.6	261.7	264.1
85°	50.8	111.8	137.1	152.5	154.8
87.5°	25.3	38.1	48.2	50.8	55.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)