

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: P473834

Luminaire Tested: **24CZ2-40VHE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473834  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40VHE-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

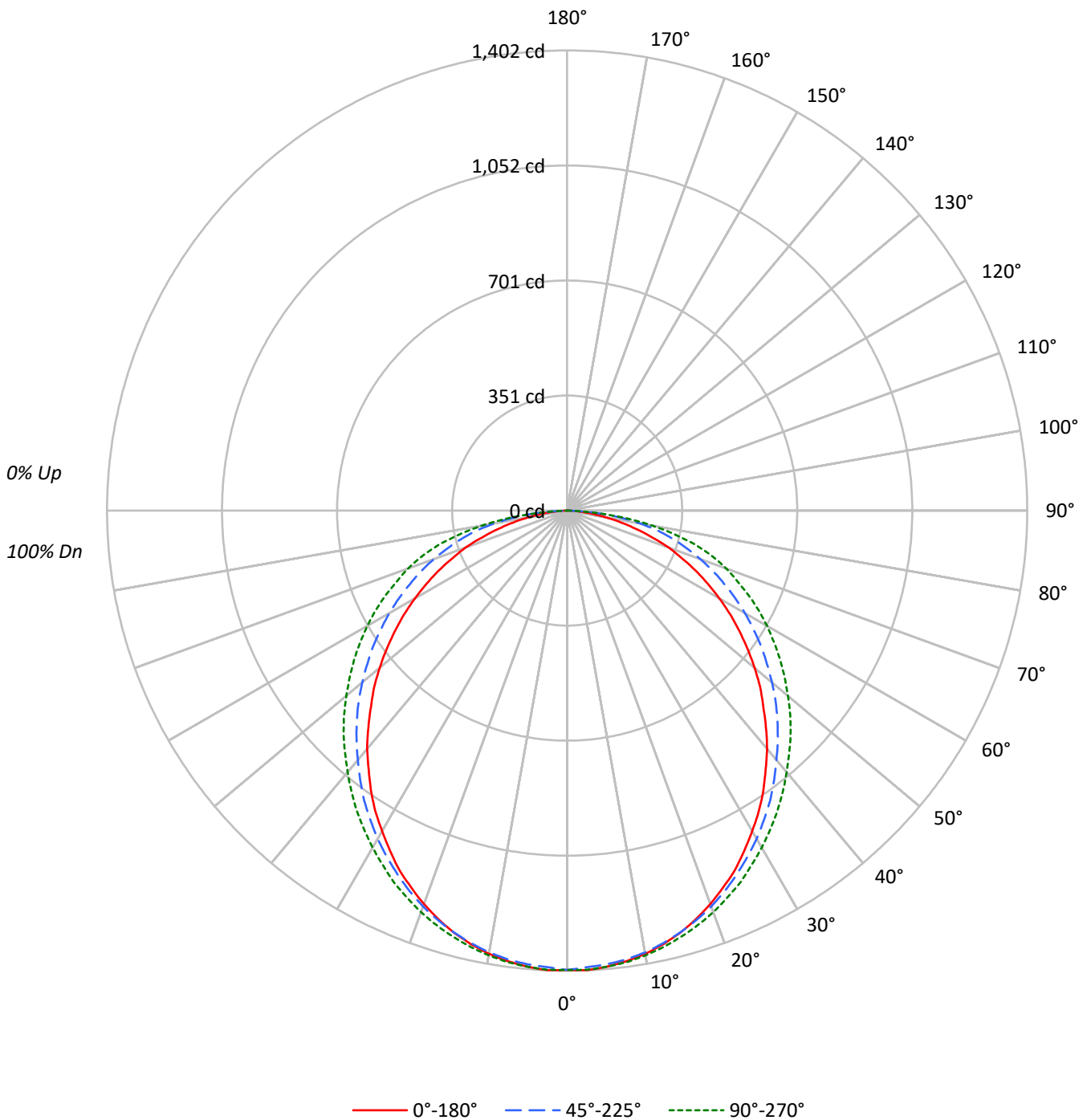
Lumens per Lamp: N/A  
Luminaire Lumens: 4049.9 lumens  
Efficiency: N/A  
Efficacy: 148.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.3  
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°	1883	1883	1883
5°	1884	1874	1884
10°	1874	1867	1880
15°	1855	1854	1872
20°	1827	1838	1864
25°	1795	1815	1855
30°	1751	1794	1842
35°	1712	1771	1835
40°	1665	1742	1827
45°	1608	1724	1833
50°	1560	1705	1838
55°	1502	1693	1859
60°	1440	1685	1893
65°	1373	1679	1941
70°	1292	1696	2031
75°	1136	1731	2112
80°	948	1744	2038
85°	676	1494	1514



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.3	3.3
10°-20°	376.8	9.3
20°-30°	565.3	14.0
30°-40°	674.9	16.7
40°-50°	699.1	17.3
50°-60°	643.6	15.9
60°-70°	519.2	12.8
70°-80°	339.2	8.4
80°-90°	99.4	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°	1074.5	26.5
0°-40°	1749.4	43.2
0°-60°	3092.1	76.3
0°-90°	4049.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4049.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1400	1400	1400	1400	1400	
5°	1395	1394	1388	1396	1395	132
15°	1332	1332	1331	1344	1344	375
25°	1209	1212	1223	1245	1250	556
35°	1042	1051	1078	1108	1117	651
45°	845	866	906	947	963	653
55°	640	668	722	775	792	573
65°	431	461	527	588	610	426
75°	218	260	333	391	406	233
85°	44	76	97	103	98	54
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1399.5	1399.5	1399.5	1399.5	1399.5
2.5°	1401.5	1399.5	1392.3	1400.8	1400.2
5°	1394.9	1393.6	1387.7	1395.6	1394.9
7.5°	1384.5	1383.8	1379.2	1387.7	1387.7
10°	1371.4	1370.1	1366.8	1376.6	1376.0
12.5°	1353.1	1352.4	1350.4	1362.2	1361.6
15°	1331.5	1331.5	1330.8	1343.9	1343.9
17.5°	1305.3	1305.9	1308.6	1323.6	1324.3
20°	1275.8	1278.5	1283.7	1300.7	1302.0
22.5°	1242.5	1247.7	1254.9	1273.9	1275.8
25°	1209.1	1211.7	1222.9	1245.1	1249.7
27.5°	1168.5	1175.1	1189.5	1212.4	1217.0
30°	1127.3	1136.5	1154.8	1178.4	1185.6
32.5°	1086.8	1094.6	1116.2	1143.0	1151.5
35°	1042.3	1051.4	1078.3	1107.7	1116.9
37.5°	993.2	1007.6	1035.7	1069.7	1079.6
40°	948.1	961.1	991.9	1029.8	1040.3
42.5°	896.4	912.7	950.0	988.6	1001.7
45°	845.3	866.3	906.2	946.7	963.1
47.5°	797.6	814.6	861.7	907.5	921.9
50°	745.2	764.9	814.6	863.0	878.0
52.5°	693.5	717.1	767.5	818.5	834.9
55°	640.5	668.0	721.7	774.7	792.3
57.5°	589.5	617.0	672.6	728.9	747.2
60°	535.2	564.6	626.1	680.5	703.4
62.5°	482.9	512.3	577.1	636.0	657.6
65°	431.2	460.6	527.4	587.5	609.8
67.5°	377.5	409.6	480.9	539.1	560.7
70°	328.4	359.2	431.2	493.3	516.2
72.5°	272.2	308.8	382.1	443.6	465.2
75°	218.5	259.7	333.0	390.6	406.3
77.5°	168.8	210.0	283.3	326.5	336.3
80°	122.4	164.2	225.1	255.2	263.0
82.5°	79.2	122.4	162.9	183.2	185.8
85°	43.8	75.9	96.8	102.7	98.1
87.5°	15.7	28.8	28.1	22.9	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)