

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: P474034

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474034
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4131.0 lumens
Efficiency: N/A
Efficacy: 151.3 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

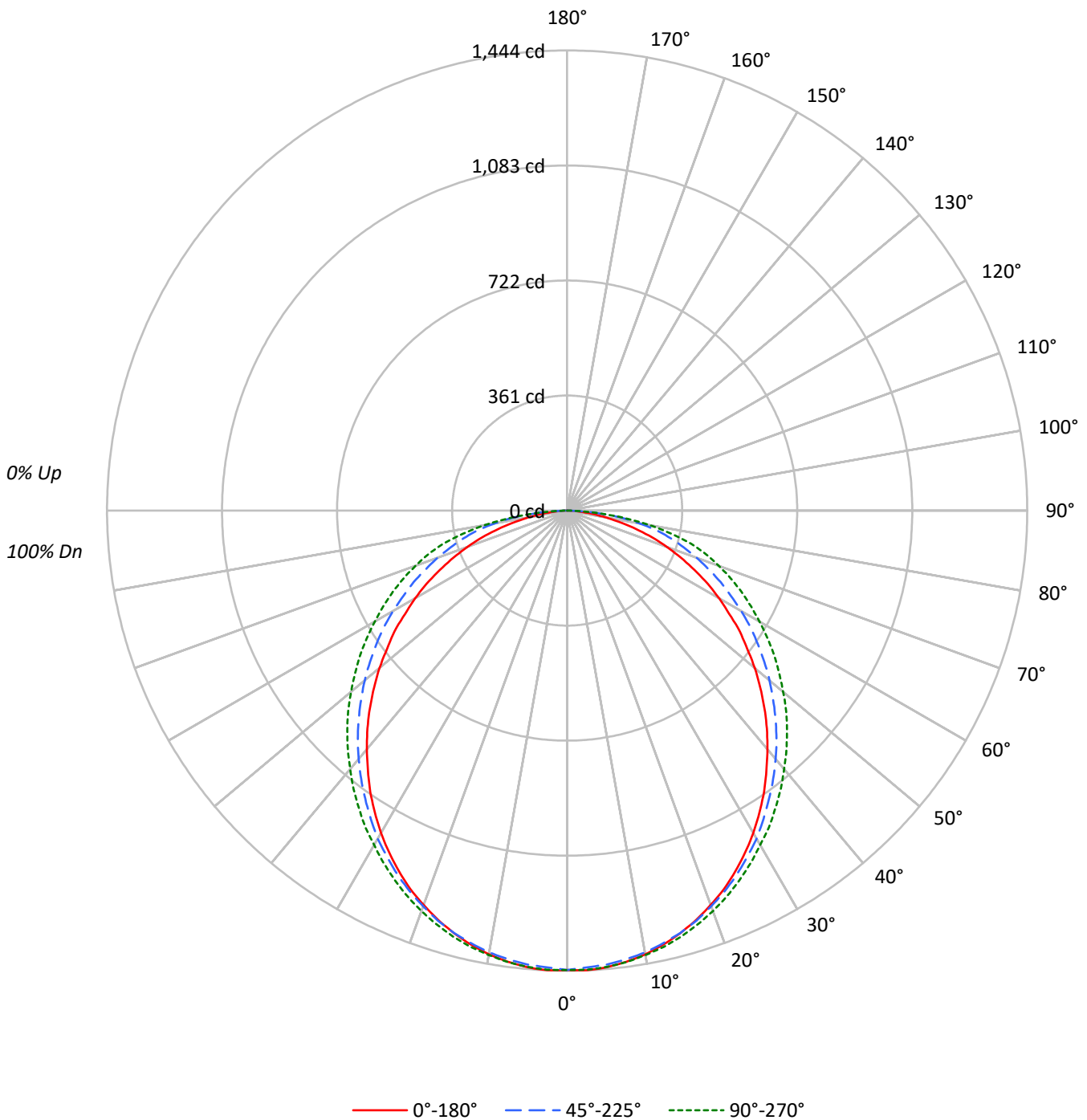
Input Watts (W): 27.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1940	1940	1940
5°	1943	1931	1941
10°	1932	1924	1935
15°	1912	1911	1927
20°	1886	1892	1915
25°	1855	1871	1900
30°	1815	1847	1882
35°	1770	1815	1871
40°	1717	1788	1860
45°	1666	1760	1857
50°	1609	1736	1852
55°	1552	1714	1862
60°	1481	1698	1875
65°	1402	1691	1920
70°	1308	1700	1989
75°	1164	1750	2096
80°	951	1788	2046
85°	670	1561	1592



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.3	3.3
10°-20°	388.3	9.4
20°-30°	582.0	14.1
30°-40°	693.2	16.8
40°-50°	714.7	17.3
50°-60°	652.2	15.8
60°-70°	521.5	12.6
70°-80°	340.6	8.2
80°-90°	102.3	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°	1106.6	26.8
0°-40°	1799.7	43.6
0°-60°	3166.6	76.7
0°-90°	4131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4131.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1442	1442	1442	1442	1442	
5°	1438	1436	1430	1438	1437	136
15°	1373	1373	1372	1384	1384	387
25°	1249	1251	1260	1278	1280	575
35°	1078	1085	1105	1132	1139	673
45°	875	891	925	964	976	675
55°	662	681	731	779	794	589
65°	440	470	531	584	603	437
75°	224	261	337	391	403	238
85°	43	78	101	103	103	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441.9	1441.9	1441.9	1441.9	1441.9
2.5°	1444.0	1441.9	1434.5	1443.3	1441.9
5°	1438.5	1435.8	1429.7	1438.5	1437.2
7.5°	1427.7	1426.3	1420.2	1430.4	1429.0
10°	1414.1	1412.7	1408.0	1418.2	1416.1
12.5°	1395.1	1394.4	1391.0	1403.2	1401.9
15°	1372.7	1373.4	1372.0	1383.6	1383.6
17.5°	1346.9	1346.2	1349.0	1363.2	1361.8
20°	1317.1	1317.7	1321.1	1337.4	1337.4
22.5°	1285.8	1285.2	1292.6	1308.9	1310.3
25°	1249.2	1251.2	1260.1	1278.4	1279.7
27.5°	1209.9	1213.2	1224.1	1245.1	1247.2
30°	1168.5	1172.5	1188.8	1208.5	1211.2
32.5°	1123.0	1131.8	1146.7	1171.9	1178.6
35°	1077.5	1085.0	1104.7	1132.5	1139.3
37.5°	1027.3	1039.5	1061.9	1092.5	1101.3
40°	977.8	990.0	1017.8	1049.7	1059.2
42.5°	927.6	940.5	972.4	1008.3	1018.5
45°	875.3	890.9	924.9	963.5	975.8
47.5°	821.7	840.0	876.7	918.8	932.3
50°	768.8	787.1	829.2	872.6	884.8
52.5°	711.8	734.9	779.7	826.5	838.7
55°	661.6	680.6	730.8	779.0	793.9
57.5°	602.6	628.3	681.9	730.8	745.0
60°	550.3	574.1	631.0	680.6	696.9
62.5°	497.4	521.8	578.8	635.1	650.0
65°	440.4	470.2	531.3	583.6	603.2
67.5°	386.1	417.3	479.7	535.4	555.7
70°	332.5	364.4	432.2	489.2	505.5
72.5°	279.6	312.8	383.4	439.0	458.0
75°	223.9	261.2	336.6	390.8	403.1
77.5°	171.7	213.1	289.1	325.7	334.5
80°	122.8	168.3	230.7	257.2	264.0
82.5°	80.7	124.9	172.4	186.6	184.6
85°	43.4	78.0	101.1	103.1	103.1
87.5°	17.0	31.2	31.9	24.4	23.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)