

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: P473884

Luminaire Tested: **24CZ2-40VHE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473884
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

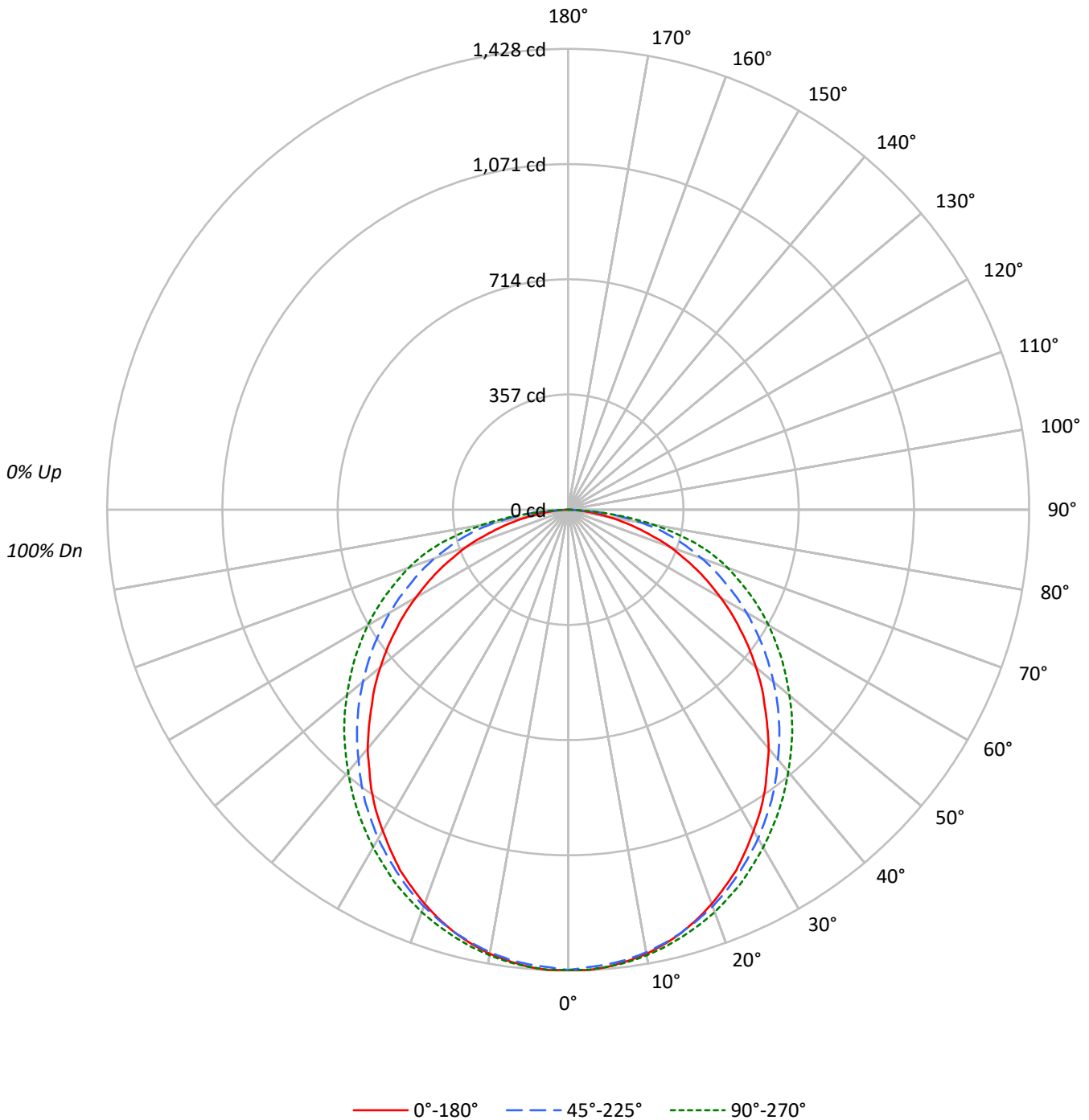
Lumens per Lamp: N/A
Luminaire Lumens: 4126.9 lumens
Efficiency: N/A
Efficacy: 151.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	1919	1919	1919
5°	1920	1910	1920
10°	1909	1903	1916
15°	1890	1889	1908
20°	1862	1873	1900
25°	1829	1850	1890
30°	1785	1828	1877
35°	1745	1805	1869
40°	1697	1775	1862
45°	1639	1757	1867
50°	1590	1738	1873
55°	1531	1725	1894
60°	1468	1717	1929
65°	1399	1711	1978
70°	1317	1729	2069
75°	1158	1764	2152
80°	966	1777	2077
85°	690	1524	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.8	3.3
10°-20°	384.0	9.3
20°-30°	576.1	14.0
30°-40°	687.8	16.7
40°-50°	712.4	17.3
50°-60°	655.8	15.9
60°-70°	529.0	12.8
70°-80°	345.7	8.4
80°-90°	101.3	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°	1094.9	26.5
0°-40°	1782.6	43.2
0°-60°	3150.9	76.3
0°-90°	4126.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4126.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1421	1420	1414	1422	1421	135
15°	1357	1357	1356	1369	1369	382
25°	1232	1235	1246	1269	1273	567
35°	1062	1071	1099	1129	1138	663
45°	861	883	923	965	981	666
55°	653	681	735	789	807	584
65°	439	469	537	599	621	434
75°	223	265	339	398	414	238
85°	45	77	99	105	100	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1426.1	1426.1	1426.1	1426.1	1426.1
2.5°	1428.1	1426.1	1418.8	1427.4	1426.8
5°	1421.4	1420.1	1414.1	1422.1	1421.4
7.5°	1410.8	1410.1	1405.4	1414.1	1414.1
10°	1397.4	1396.1	1392.8	1402.8	1402.1
12.5°	1378.8	1378.1	1376.1	1388.1	1387.4
15°	1356.8	1356.8	1356.1	1369.4	1369.4
17.5°	1330.1	1330.8	1333.4	1348.8	1349.4
20°	1300.1	1302.8	1308.1	1325.4	1326.8
22.5°	1266.1	1271.4	1278.8	1298.1	1300.1
25°	1232.1	1234.8	1246.1	1268.8	1273.4
27.5°	1190.7	1197.4	1212.1	1235.4	1240.1
30°	1148.7	1158.1	1176.7	1200.7	1208.1
32.5°	1107.4	1115.4	1137.4	1164.7	1173.4
35°	1062.1	1071.4	1098.7	1128.7	1138.1
37.5°	1012.1	1026.7	1055.4	1090.1	1100.1
40°	966.1	979.4	1010.7	1049.4	1060.1
42.5°	913.4	930.1	968.1	1007.4	1020.7
45°	861.4	882.7	923.4	964.7	981.4
47.5°	812.7	830.1	878.1	924.7	939.4
50°	759.4	779.4	830.1	879.4	894.7
52.5°	706.7	730.7	782.1	834.1	850.7
55°	652.7	680.7	735.4	789.4	807.4
57.5°	600.7	628.7	685.4	742.7	761.4
60°	545.4	575.4	638.0	693.4	716.7
62.5°	492.0	522.0	588.0	648.0	670.0
65°	439.4	469.4	537.4	598.7	621.4
67.5°	384.7	417.4	490.0	549.4	571.4
70°	334.7	366.0	439.4	502.7	526.0
72.5°	277.4	314.7	389.4	452.0	474.0
75°	222.7	264.7	339.4	398.0	414.0
77.5°	172.0	214.0	288.7	332.7	342.7
80°	124.7	167.3	229.3	260.0	268.0
82.5°	80.7	124.7	166.0	186.7	189.3
85°	44.7	77.3	98.7	104.7	100.0
87.5°	16.0	29.3	28.7	23.3	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)