

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: P474835

Luminaire Tested: **22CZ2-50VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474835
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

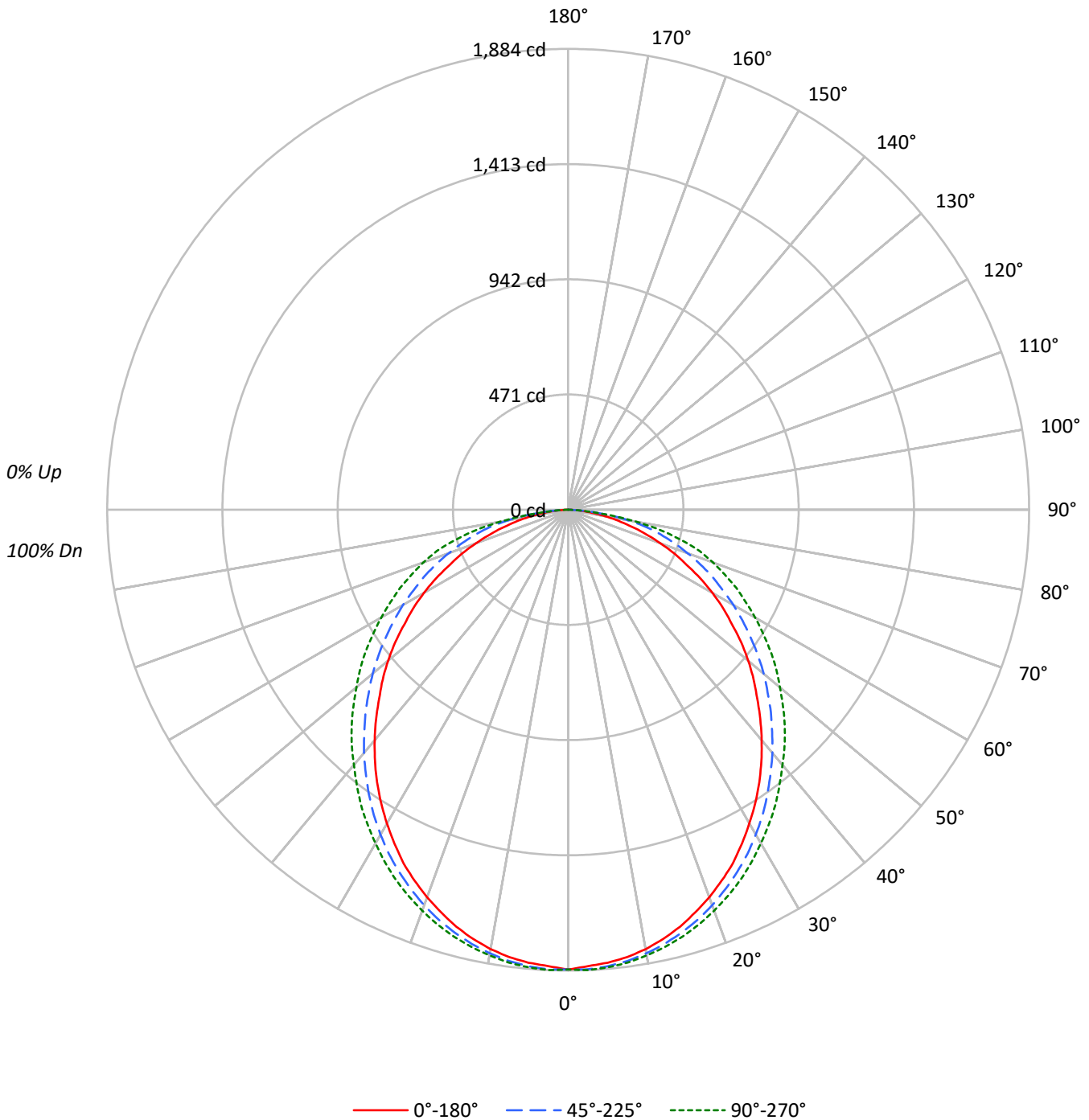
Lumens per Lamp: N/A
Luminaire Lumens: 5183.5 lumens
Efficiency: N/A
Efficacy: 148.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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



TEST NUMBER: P474835
CATALOG NUMBER: 22CZ2-50VHE-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474835

CATALOG NUMBER: 22CZ2-50VHE-UNV-L840-CD1-U

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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5059	5059	5059
5°	5022	5060	5072
10°	4984	5032	5056
15°	4917	4987	5032
20°	4828	4928	4994
25°	4733	4853	4954
30°	4602	4765	4895
35°	4473	4664	4847
40°	4321	4560	4787
45°	4156	4456	4765
50°	4022	4366	4728
55°	3834	4271	4738
60°	3661	4198	4752
65°	3404	4143	4826
70°	3146	4085	4947
75°	2813	4066	4977
80°	2360	3854	4345
85°	1828	2637	2470



TEST NUMBER: P474835

CATALOG NUMBER: 22CZ2-50VHE-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.6	3.4
10°-20°	504.2	9.7
20°-30°	751.7	14.5
30°-40°	887.4	17.1
40°-50°	904.4	17.4
50°-60°	815.6	15.7
60°-70°	641.1	12.4
70°-80°	401.4	7.7
80°-90°	100.1	1.9
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°	1433.5	27.7
0°-40°	2320.9	44.8
0°-60°	4040.9	78.0
0°-90°	5183.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5183.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1880	1880	1880	1880	1880	
5°	1859	1863	1873	1878	1878	176
15°	1765	1772	1790	1803	1806	497
25°	1594	1606	1634	1660	1668	733
35°	1362	1379	1420	1459	1476	851
45°	1092	1116	1171	1228	1252	845
55°	817	842	910	980	1010	733
65°	535	567	651	723	758	533
75°	271	311	391	461	479	287
85°	59	76	85	85	80	71
90°	0	0	0	0	0	



TEST NUMBER: P474835

CATALOG NUMBER: 22CZ2-50VHE-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1879.8	1879.8	1879.8	1879.8	1879.8
2.5°	1867.7	1872.1	1880.9	1884.2	1884.2
5°	1859.0	1863.4	1873.2	1877.6	1877.6
7.5°	1844.7	1849.1	1861.2	1866.6	1867.7
10°	1823.9	1829.4	1841.4	1850.2	1850.2
12.5°	1797.6	1803.1	1818.4	1829.4	1830.5
15°	1764.8	1772.4	1790.0	1803.1	1806.4
17.5°	1726.4	1738.5	1758.2	1774.6	1777.9
20°	1685.9	1697.9	1720.9	1739.6	1744.0
22.5°	1641.0	1651.9	1679.3	1702.3	1707.8
25°	1593.9	1605.9	1634.4	1659.6	1668.4
27.5°	1538.0	1552.2	1586.2	1614.7	1623.5
30°	1481.0	1498.6	1533.6	1565.4	1575.3
32.5°	1423.0	1439.4	1478.9	1512.8	1526.0
35°	1361.6	1379.2	1419.7	1459.1	1475.6
37.5°	1297.0	1314.5	1358.4	1403.3	1418.6
40°	1230.2	1251.0	1298.1	1346.3	1362.7
42.5°	1162.3	1184.2	1233.5	1287.1	1309.1
45°	1092.2	1116.3	1171.0	1228.0	1252.1
47.5°	1028.6	1048.3	1105.3	1167.7	1190.8
50°	960.7	979.3	1042.9	1105.3	1129.4
52.5°	891.7	909.2	977.1	1042.9	1072.4
55°	817.2	842.4	910.3	980.4	1010.0
57.5°	751.5	774.5	844.6	915.8	944.3
60°	680.3	704.4	780.0	852.3	882.9
62.5°	609.1	635.4	712.0	789.8	818.3
65°	534.6	567.4	650.7	723.0	758.0
67.5°	471.0	502.8	585.0	660.6	691.2
70°	399.8	437.1	519.2	595.9	628.8
72.5°	333.0	370.3	454.6	531.3	564.2
75°	270.6	311.1	391.1	461.2	478.7
77.5°	210.3	248.7	328.6	369.2	387.8
80°	152.3	189.5	248.7	276.1	280.4
82.5°	103.0	134.7	168.7	176.4	172.0
85°	59.2	75.6	85.4	85.4	80.0
87.5°	24.1	24.1	20.8	13.1	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)