

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: P474834

Luminaire Tested: **22CZ2-44VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474834
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44VHE-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

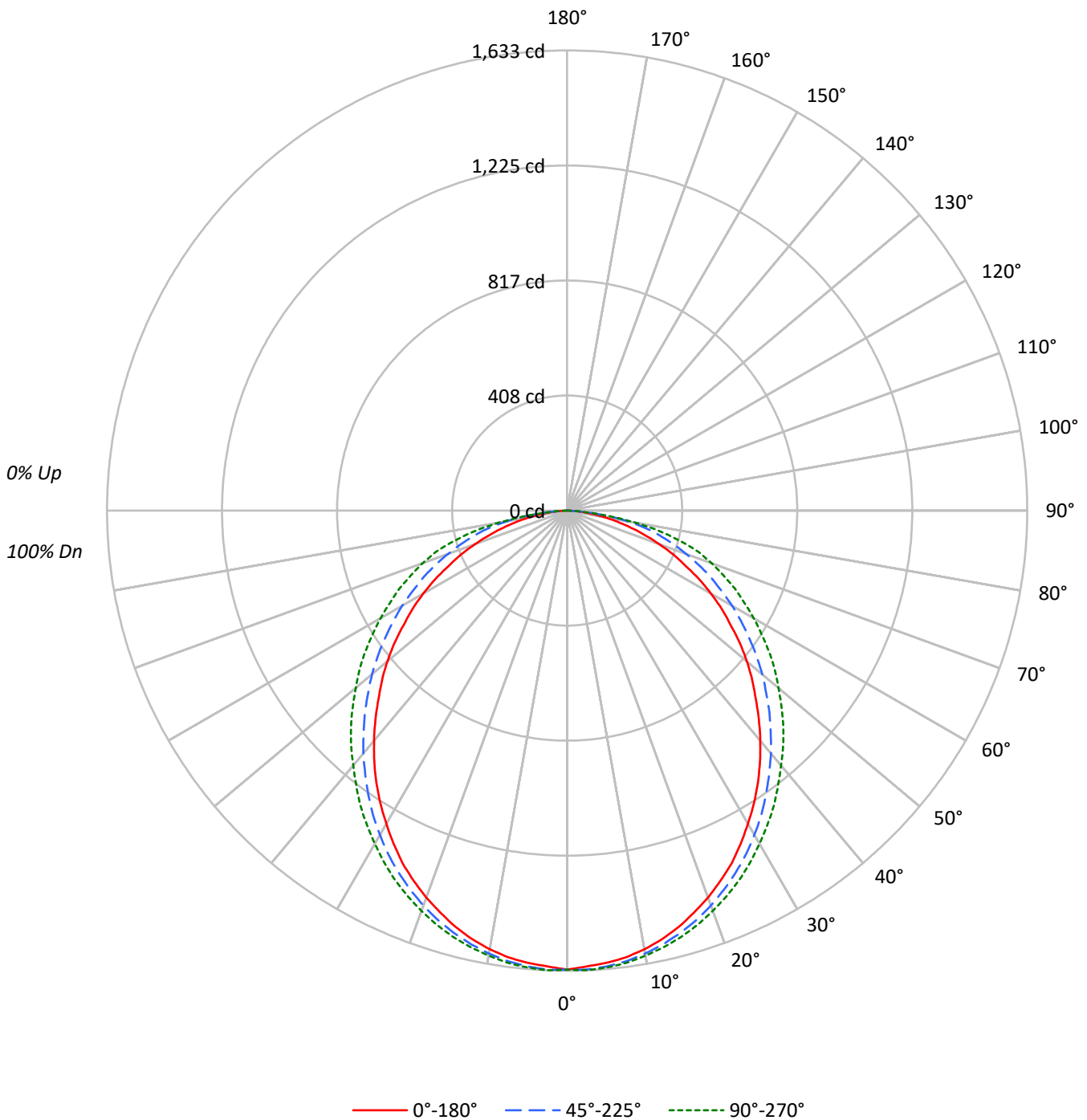
Lumens per Lamp: N/A
Luminaire Lumens: 4492.6 lumens
Efficiency: N/A
Efficacy: 148.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 30.2
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: P474834
CATALOG NUMBER: 22CZ2-44VHE-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474834

CATALOG NUMBER: 22CZ2-44VHE-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°	4384	4384	4384
5°	4352	4385	4396
10°	4320	4361	4382
15°	4261	4322	4362
20°	4184	4271	4328
25°	4102	4206	4293
30°	3988	4130	4242
35°	3877	4042	4201
40°	3745	3952	4149
45°	3602	3863	4130
50°	3486	3784	4098
55°	3323	3702	4107
60°	3173	3638	4119
65°	2950	3591	4183
70°	2726	3541	4288
75°	2438	3525	4314
80°	2046	3340	3767
85°	1584	2288	2140



TEST NUMBER: P474834

CATALOG NUMBER: 22CZ2-44VHE-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	3.4
10°-20°	437.0	9.7
20°-30°	651.5	14.5
30°-40°	769.1	17.1
40°-50°	783.9	17.4
50°-60°	706.9	15.7
60°-70°	555.6	12.4
70°-80°	347.9	7.7
80°-90°	86.8	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°	1242.4	27.7
0°-40°	2011.5	44.8
0°-60°	3502.4	78.0
0°-90°	4492.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4492.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1629	1629	1629	1629	1629	
5°	1611	1615	1624	1627	1627	153
15°	1530	1536	1551	1563	1566	431
25°	1381	1392	1417	1438	1446	635
35°	1180	1195	1230	1265	1279	737
45°	947	968	1015	1064	1085	732
55°	708	730	789	850	875	636
65°	463	492	564	627	657	462
75°	234	270	339	400	415	249
85°	51	66	74	74	69	62
90°	0	0	0	0	0	



TEST NUMBER: P474834

CATALOG NUMBER: 22CZ2-44VHE-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1629.2	1629.2	1629.2	1629.2	1629.2
2.5°	1618.8	1622.6	1630.2	1633.0	1633.0
5°	1611.2	1615.0	1623.5	1627.3	1627.3
7.5°	1598.9	1602.7	1613.1	1617.9	1618.8
10°	1580.8	1585.6	1596.0	1603.6	1603.6
12.5°	1558.0	1562.8	1576.1	1585.6	1586.5
15°	1529.6	1536.2	1551.4	1562.8	1565.6
17.5°	1496.3	1506.8	1523.9	1538.1	1540.9
20°	1461.2	1471.6	1491.6	1507.7	1511.5
22.5°	1422.3	1431.8	1455.5	1475.4	1480.2
25°	1381.4	1391.9	1416.6	1438.4	1446.0
27.5°	1333.0	1345.4	1374.8	1399.5	1407.1
30°	1283.6	1298.8	1329.2	1356.8	1365.3
32.5°	1233.3	1247.6	1281.7	1311.2	1322.6
35°	1180.2	1195.4	1230.5	1264.7	1278.9
37.5°	1124.1	1139.3	1177.3	1216.2	1229.5
40°	1066.2	1084.3	1125.1	1166.9	1181.1
42.5°	1007.4	1026.3	1069.1	1115.6	1134.6
45°	946.6	967.5	1015.0	1064.3	1085.2
47.5°	891.5	908.6	958.0	1012.1	1032.0
50°	832.7	848.8	903.9	958.0	978.9
52.5°	772.8	788.0	846.9	903.9	929.5
55°	708.3	730.1	789.0	849.8	875.4
57.5°	651.3	671.3	732.0	793.7	818.4
60°	589.6	610.5	676.0	738.7	765.3
62.5°	527.9	550.7	617.1	684.5	709.2
65°	463.3	491.8	564.0	626.6	657.0
67.5°	408.3	435.8	507.0	572.5	599.1
70°	346.5	378.8	450.0	516.5	545.0
72.5°	288.6	320.9	394.0	460.5	489.0
75°	234.5	269.6	339.0	399.7	414.9
77.5°	182.3	215.5	284.8	320.0	336.1
80°	132.0	164.3	215.5	239.3	243.1
82.5°	89.2	116.8	146.2	152.9	149.1
85°	51.3	65.5	74.1	74.1	69.3
87.5°	20.9	20.9	18.0	11.4	6.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)