

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: P474829

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474829
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44HE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4653.6 lumens
Efficiency: N/A
Efficacy: 141.9 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

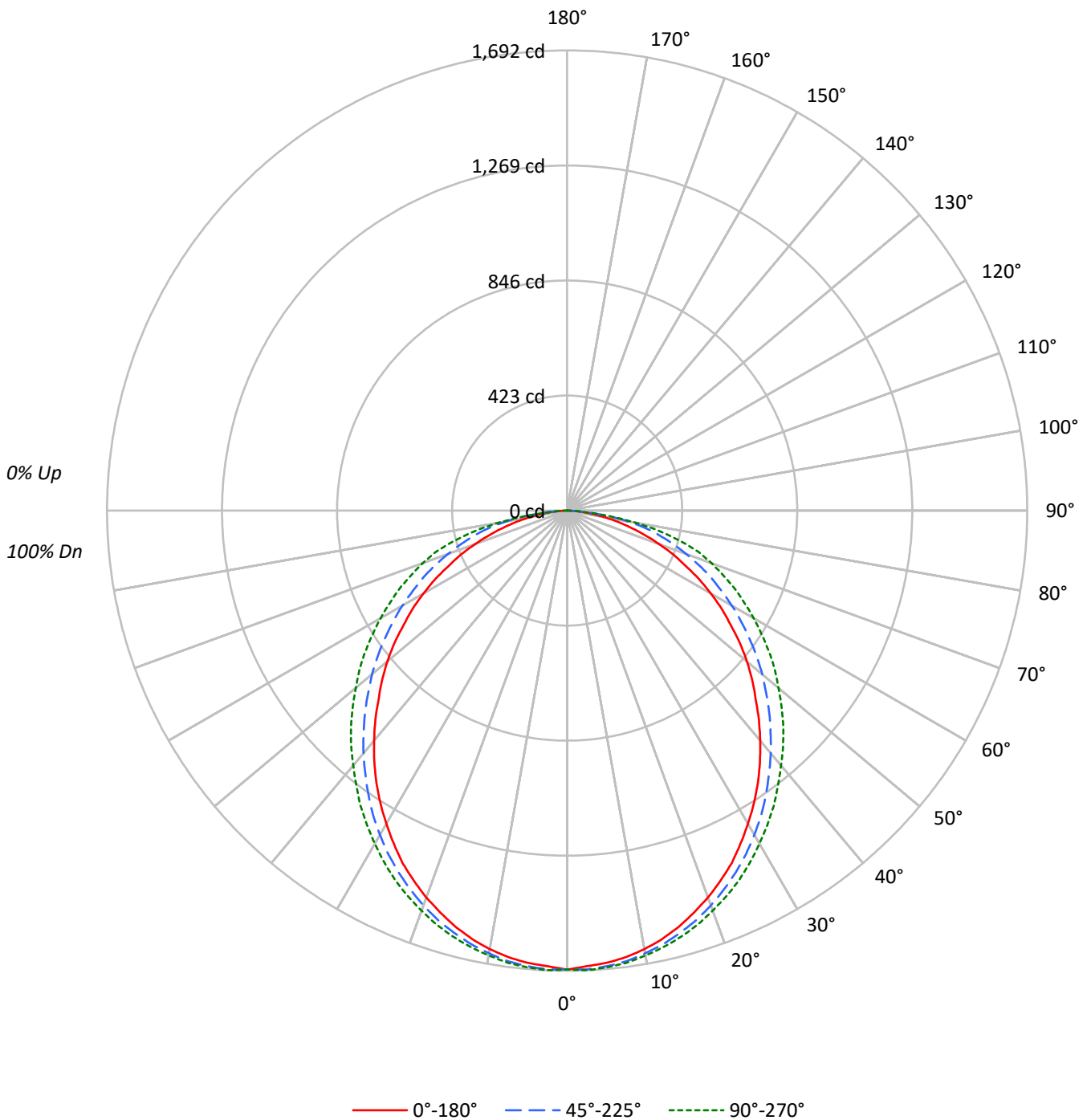
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474829

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

Luminous Intensity Polar Plot





TEST NUMBER: P474829

CATALOG NUMBER: 22CZ2-44HE-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°	4541	4541	4541
5°	4508	4543	4554
10°	4474	4517	4539
15°	4414	4477	4518
20°	4334	4424	4484
25°	4249	4357	4447
30°	4131	4278	4394
35°	4016	4187	4352
40°	3880	4094	4298
45°	3731	4001	4278
50°	3611	3920	4245
55°	3442	3834	4254
60°	3287	3768	4266
65°	3056	3720	4334
70°	2825	3668	4441
75°	2525	3650	4469
80°	2118	3459	3902
85°	1639	2368	2217



TEST NUMBER: P474829

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.4	3.4
10°-20°	452.6	9.7
20°-30°	674.9	14.5
30°-40°	796.7	17.1
40°-50°	812.0	17.4
50°-60°	732.3	15.7
60°-70°	575.5	12.4
70°-80°	360.3	7.7
80°-90°	89.8	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°	1286.9	27.7
0°-40°	2083.6	44.8
0°-60°	3627.9	78.0
0°-90°	4653.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4653.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1688	1688	1688	1688	1688	
5°	1669	1673	1682	1686	1686	158
15°	1584	1591	1607	1619	1622	446
25°	1431	1442	1467	1490	1498	658
35°	1222	1238	1275	1310	1325	764
45°	980	1002	1051	1102	1124	759
55°	734	756	817	880	907	658
65°	480	509	584	649	681	478
75°	243	279	351	414	430	258
85°	53	68	77	77	72	64
90°	0	0	0	0	0	



TEST NUMBER: P474829

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1687.6	1687.6	1687.6	1687.6	1687.6
2.5°	1676.8	1680.7	1688.6	1691.6	1691.6
5°	1668.9	1672.9	1681.7	1685.7	1685.7
7.5°	1656.2	1660.1	1670.9	1675.8	1676.8
10°	1637.5	1642.4	1653.2	1661.1	1661.1
12.5°	1613.9	1618.8	1632.6	1642.4	1643.4
15°	1584.4	1591.3	1607.0	1618.8	1621.7
17.5°	1549.9	1560.8	1578.5	1593.2	1596.2
20°	1513.6	1524.4	1545.0	1561.7	1565.7
22.5°	1473.2	1483.1	1507.7	1528.3	1533.2
25°	1430.9	1441.8	1467.3	1490.0	1497.8
27.5°	1380.8	1393.6	1424.1	1449.6	1457.5
30°	1329.6	1345.4	1376.9	1405.4	1414.2
32.5°	1277.5	1292.3	1327.7	1358.2	1370.0
35°	1222.5	1238.2	1274.6	1310.0	1324.7
37.5°	1164.4	1180.2	1219.5	1259.8	1273.6
40°	1104.4	1123.1	1165.4	1208.7	1223.4
42.5°	1043.5	1063.1	1107.4	1155.6	1175.2
45°	980.5	1002.2	1051.3	1102.5	1124.1
47.5°	923.5	941.2	992.3	1048.4	1069.0
50°	862.5	879.2	936.3	992.3	1014.0
52.5°	800.5	816.3	877.3	936.3	962.8
55°	733.7	756.3	817.3	880.2	906.8
57.5°	674.7	695.3	758.3	822.2	847.7
60°	610.7	632.4	700.2	765.1	792.7
62.5°	546.8	570.4	639.3	709.1	734.7
65°	479.9	509.4	584.2	649.1	680.6
67.5°	422.9	451.4	525.2	593.0	620.6
70°	359.0	392.4	466.2	535.0	564.5
72.5°	299.0	332.4	408.1	477.0	506.5
75°	242.9	279.3	351.1	414.0	429.8
77.5°	188.8	223.2	295.0	331.4	348.1
80°	136.7	170.1	223.2	247.8	251.8
82.5°	92.4	121.0	151.5	158.3	154.4
85°	53.1	67.9	76.7	76.7	71.8
87.5°	21.6	21.6	18.7	11.8	6.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)