

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: P475182

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475182
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-44VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3639.3 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

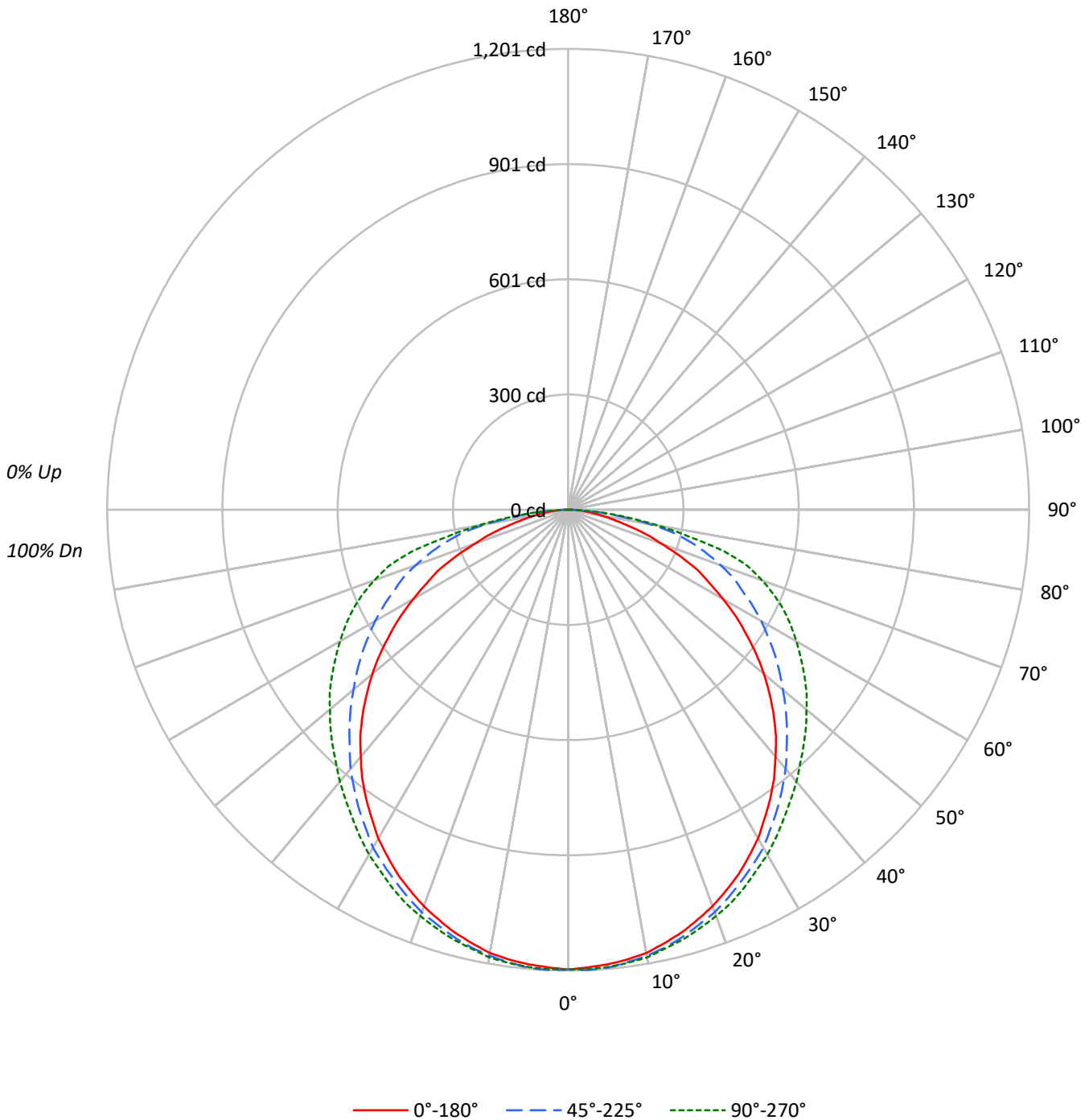
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475182

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

Luminous Intensity Polar Plot





TEST NUMBER: P475182

CATALOG NUMBER: 22CZ2-44VHE-HRP-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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3225	3225	3225
5°	3212	3237	3231
10°	3206	3225	3237
15°	3178	3211	3230
20°	3149	3195	3228
25°	3116	3170	3225
30°	3074	3160	3224
35°	3016	3122	3220
40°	2951	3097	3250
45°	2883	3067	3302
50°	2787	3057	3393
55°	2660	3080	3522
60°	2508	3126	3695
65°	2368	3187	3947
70°	2023	3323	4227
75°	1695	3462	4392
80°	1389	3344	3665
85°	1201	2479	2692



TEST NUMBER: P475182

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	3.1
10°-20°	324.9	8.9
20°-30°	492.4	13.5
30°-40°	594.5	16.3
40°-50°	624.7	17.2
50°-60°	587.8	16.2
60°-70°	490.1	13.5
70°-80°	324.7	8.9
80°-90°	86.5	2.4
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°	930.9	25.6
0°-40°	1525.4	41.9
0°-60°	2737.9	75.2
0°-90°	3639.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3639.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1189	1191	1198	1198	1196	113
15°	1141	1146	1152	1157	1159	322
25°	1049	1056	1068	1081	1086	483
35°	918	928	950	971	980	574
45°	758	769	806	847	868	584
55°	567	592	657	723	751	507
65°	372	404	500	583	620	362
75°	163	227	333	402	422	177
85°	39	60	80	87	87	45
90°	0	0	0	0	0	



TEST NUMBER: P475182

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.3	1198.3	1198.3	1198.3	1198.3
2.5°	1193.8	1196.1	1200.7	1200.7	1198.3
5°	1189.2	1191.4	1198.3	1198.3	1196.1
7.5°	1182.3	1184.7	1189.2	1193.8	1191.4
10°	1173.2	1175.4	1180.1	1184.7	1184.7
12.5°	1157.1	1159.4	1168.5	1170.9	1170.9
15°	1140.9	1145.6	1152.5	1157.1	1159.4
17.5°	1120.4	1124.9	1134.0	1143.3	1143.3
20°	1099.8	1104.2	1115.8	1124.9	1127.1
22.5°	1074.4	1081.3	1092.9	1104.2	1108.9
25°	1049.3	1056.2	1067.5	1081.3	1086.0
27.5°	1019.2	1026.1	1042.4	1058.4	1060.6
30°	989.4	996.3	1017.0	1030.8	1037.7
32.5°	952.7	961.8	982.5	1003.2	1010.1
35°	918.2	927.6	950.5	971.2	980.3
37.5°	881.5	890.7	916.0	941.4	952.7
40°	840.2	851.7	881.5	909.1	925.1
42.5°	801.2	812.8	842.6	879.3	895.3
45°	757.6	769.0	805.9	847.1	867.7
47.5°	711.6	725.4	769.0	819.7	840.2
50°	665.8	681.8	730.1	787.4	810.4
52.5°	617.5	638.2	693.4	755.4	782.8
55°	567.0	592.4	656.6	723.2	750.7
57.5°	518.7	541.9	617.5	688.7	718.5
60°	466.0	495.8	580.8	654.2	686.5
62.5°	415.5	447.8	541.9	619.9	654.2
65°	371.9	404.0	500.5	583.0	619.9
67.5°	314.5	358.1	466.0	544.1	580.8
70°	257.1	316.8	422.4	502.7	537.2
72.5°	213.5	270.9	378.8	459.1	491.4
75°	163.0	227.3	333.0	401.7	422.4
77.5°	121.7	188.2	284.7	319.2	321.4
80°	89.6	144.6	215.8	227.3	236.5
82.5°	62.1	101.0	140.1	153.7	158.4
85°	38.9	59.6	80.3	87.2	87.2
87.5°	20.7	22.9	27.6	27.6	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)