

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: P475125

Luminaire Tested: **22CZ2-50VHE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475125
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-50VHE-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3976.4 lumens
Efficiency: N/A
Efficacy: 113.6 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

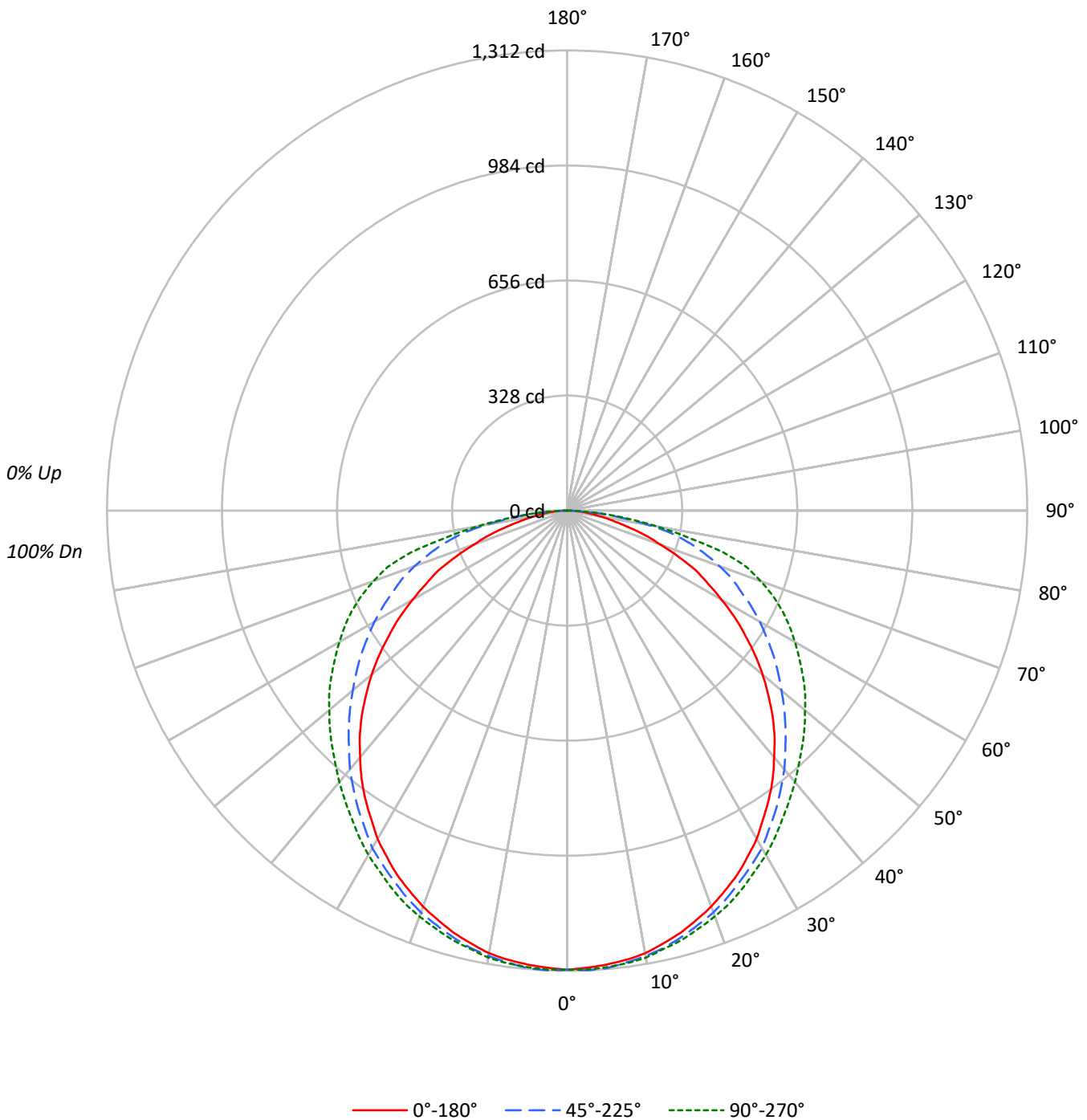
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3523	3523	3523
5°	3510	3537	3530
10°	3503	3523	3537
15°	3473	3508	3529
20°	3441	3491	3527
25°	3404	3463	3523
30°	3359	3453	3523
35°	3296	3412	3519
40°	3225	3384	3551
45°	3150	3351	3608
50°	3045	3340	3707
55°	2906	3366	3849
60°	2740	3415	4036
65°	2588	3482	4313
70°	2211	3631	4618
75°	1853	3782	4798
80°	1517	3654	4004
85°	1312	2708	2942



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.1	3.1
10°-20°	355.0	8.9
20°-30°	538.0	13.5
30°-40°	649.6	16.3
40°-50°	682.6	17.2
50°-60°	642.2	16.2
60°-70°	535.5	13.5
70°-80°	354.8	8.9
80°-90°	94.5	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°	1017.1	25.6
0°-40°	1666.7	41.9
0°-60°	2991.5	75.2
0°-90°	3976.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3976.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1309	1309	1309	1309	1309	
5°	1299	1302	1309	1309	1307	123
15°	1247	1252	1259	1264	1267	352
25°	1146	1154	1166	1182	1187	528
35°	1003	1014	1038	1061	1071	627
45°	828	840	881	926	948	638
55°	620	647	718	790	820	554
65°	406	441	547	637	677	395
75°	178	248	364	439	462	193
85°	42	65	88	95	95	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1309.3	1309.3	1309.3	1309.3	1309.3
2.5°	1304.4	1306.9	1312.0	1312.0	1309.3
5°	1299.3	1301.8	1309.3	1309.3	1306.9
7.5°	1291.8	1294.5	1299.3	1304.4	1301.8
10°	1281.8	1284.3	1289.4	1294.5	1294.5
12.5°	1264.3	1266.8	1276.7	1279.4	1279.4
15°	1246.6	1251.7	1259.2	1264.3	1266.8
17.5°	1224.2	1229.1	1239.1	1249.3	1249.3
20°	1201.6	1206.5	1219.1	1229.1	1231.5
22.5°	1173.9	1181.5	1194.1	1206.5	1211.6
25°	1146.5	1154.0	1166.4	1181.5	1186.6
27.5°	1113.6	1121.2	1138.9	1156.4	1158.8
30°	1081.1	1088.6	1111.2	1126.3	1133.8
32.5°	1041.0	1050.9	1073.5	1096.1	1103.7
35°	1003.3	1013.5	1038.5	1061.1	1071.1
37.5°	963.2	973.2	1000.9	1028.6	1041.0
40°	918.0	930.6	963.2	993.3	1010.8
42.5°	875.5	888.1	920.7	960.8	978.3
45°	827.8	840.2	880.6	925.5	948.1
47.5°	777.5	792.6	840.2	895.6	918.0
50°	727.4	744.9	797.7	860.4	885.4
52.5°	674.7	697.3	757.6	825.4	855.3
55°	619.5	647.2	717.5	790.1	820.3
57.5°	566.8	592.1	674.7	752.5	785.0
60°	509.2	541.8	634.6	714.8	750.0
62.5°	454.0	489.3	592.1	677.4	714.8
65°	406.4	441.4	546.9	637.0	677.4
67.5°	343.7	391.3	509.2	594.5	634.6
70°	281.0	346.1	461.5	549.3	587.0
72.5°	233.3	296.0	413.9	501.6	536.9
75°	178.2	248.4	363.8	438.9	461.5
77.5°	132.9	205.6	311.1	348.8	351.2
80°	97.9	158.0	235.8	248.4	258.4
82.5°	67.8	110.3	153.1	167.9	173.0
85°	42.5	65.1	87.7	95.3	95.3
87.5°	22.6	25.0	30.1	30.1	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)