

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: P474482

Luminaire Tested: **24CZ2-30VHE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474482
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30VHE-HRP-UNV-L840-CD1-U
Description: 2'X4' 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: 2504.6 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

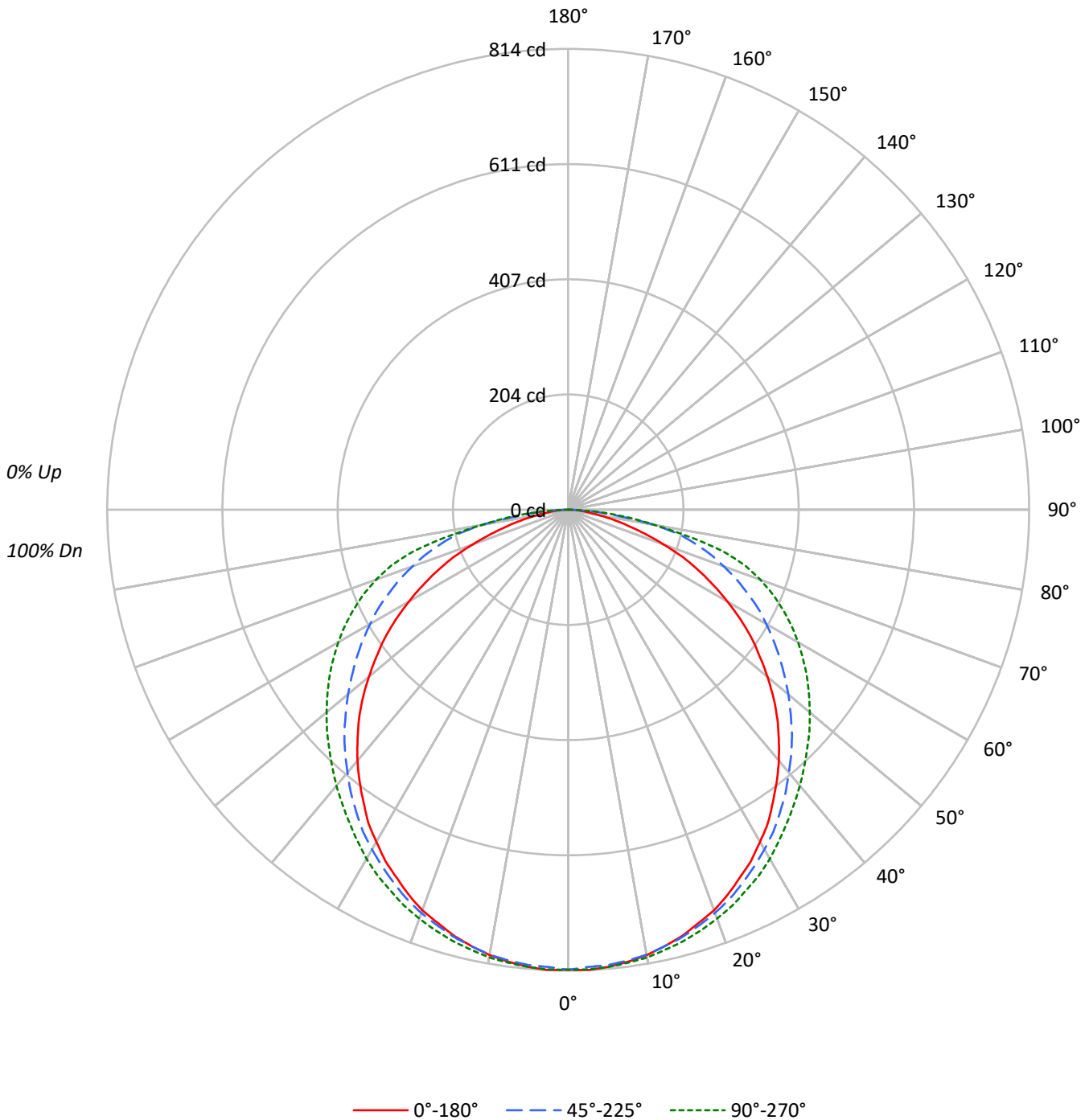
Input Watts (W): 20.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474482

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L840-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474482

CATALOG NUMBER: 24CZ2-30VHE-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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		60	54	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	38		50	43	38		49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		41	34	30	28
9	55	41	33	27	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	24		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1093	1093	1093
5°	1095	1090	1095
10°	1091	1090	1097
15°	1085	1088	1098
20°	1078	1085	1101
25°	1065	1080	1102
30°	1052	1077	1106
35°	1035	1071	1107
40°	1017	1065	1118
45°	994	1063	1135
50°	961	1062	1165
55°	927	1070	1208
60°	875	1086	1261
65°	808	1112	1332
70°	705	1151	1419
75°	572	1210	1467
80°	423	1186	1186
85°	324	874	986



TEST NUMBER: P474482

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L840-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	3.1
10°-20°	221.1	8.8
20°-30°	336.5	13.4
30°-40°	408.6	16.3
40°-50°	431.7	17.2
50°-60°	407.4	16.3
60°-70°	338.7	13.5
70°-80°	222.8	8.9
80°-90°	60.7	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°	634.6	25.3
0°-40°	1043.2	41.7
0°-60°	1882.3	75.2
0°-90°	2504.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2504.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	813	813	813	813	813	
5°	811	811	807	811	811	77
15°	779	780	781	788	788	220
25°	717	721	728	740	742	331
35°	630	638	652	669	674	394
45°	522	533	559	586	597	402
55°	395	412	456	499	515	352
65°	254	283	349	400	418	251
75°	110	160	233	276	282	119
85°	21	46	57	63	64	26
90°	0	0	0	0	0	



TEST NUMBER: P474482

CATALOG NUMBER: 24CZ2-30VHE-HRP-UNV-L840-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	812.6	812.6	812.6	812.6	812.6
2.5°	813.7	812.6	808.4	812.6	812.6
5°	810.6	810.6	807.3	810.6	810.6
7.5°	805.3	805.3	803.1	807.3	807.3
10°	798.9	798.9	798.0	803.1	803.1
12.5°	789.6	790.5	789.6	795.8	795.8
15°	779.0	780.1	781.2	788.5	788.5
17.5°	765.5	767.5	769.7	778.0	779.0
20°	752.9	753.9	758.0	767.5	768.6
22.5°	736.1	739.2	744.5	753.9	757.1
25°	717.2	721.4	727.7	740.3	742.3
27.5°	699.4	702.5	710.9	724.6	728.8
30°	677.3	682.6	693.0	706.7	712.0
32.5°	656.4	661.6	674.2	688.9	693.0
35°	630.2	637.5	652.2	668.9	674.2
37.5°	605.0	612.3	630.2	649.0	655.4
40°	578.8	587.2	606.1	628.0	636.4
42.5°	550.5	562.0	583.0	607.1	616.5
45°	522.2	532.7	558.9	586.1	596.6
47.5°	491.8	504.4	532.7	565.2	577.8
50°	459.3	475.0	507.5	543.1	556.8
52.5°	426.8	444.6	481.3	521.1	535.8
55°	395.3	412.1	456.1	499.1	514.8
57.5°	360.7	381.7	429.9	476.0	491.8
60°	325.0	348.1	403.7	451.9	468.7
62.5°	289.4	315.6	378.5	426.8	444.6
65°	253.8	283.1	349.2	400.5	418.4
67.5°	219.1	251.6	321.9	373.3	391.1
70°	179.3	220.2	292.5	342.9	360.7
72.5°	142.6	189.8	264.2	311.4	327.2
75°	110.1	160.5	232.8	275.7	282.1
77.5°	80.7	131.1	200.3	214.9	216.0
80°	54.6	104.8	153.1	151.0	153.1
82.5°	35.6	78.7	96.4	108.0	109.0
85°	21.0	46.2	56.6	63.0	63.9
87.5°	10.4	15.7	19.9	21.0	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)