

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: P475281

Luminaire Tested: **22CZ2-105VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475281
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-105VHE-SQR-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10004.8 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

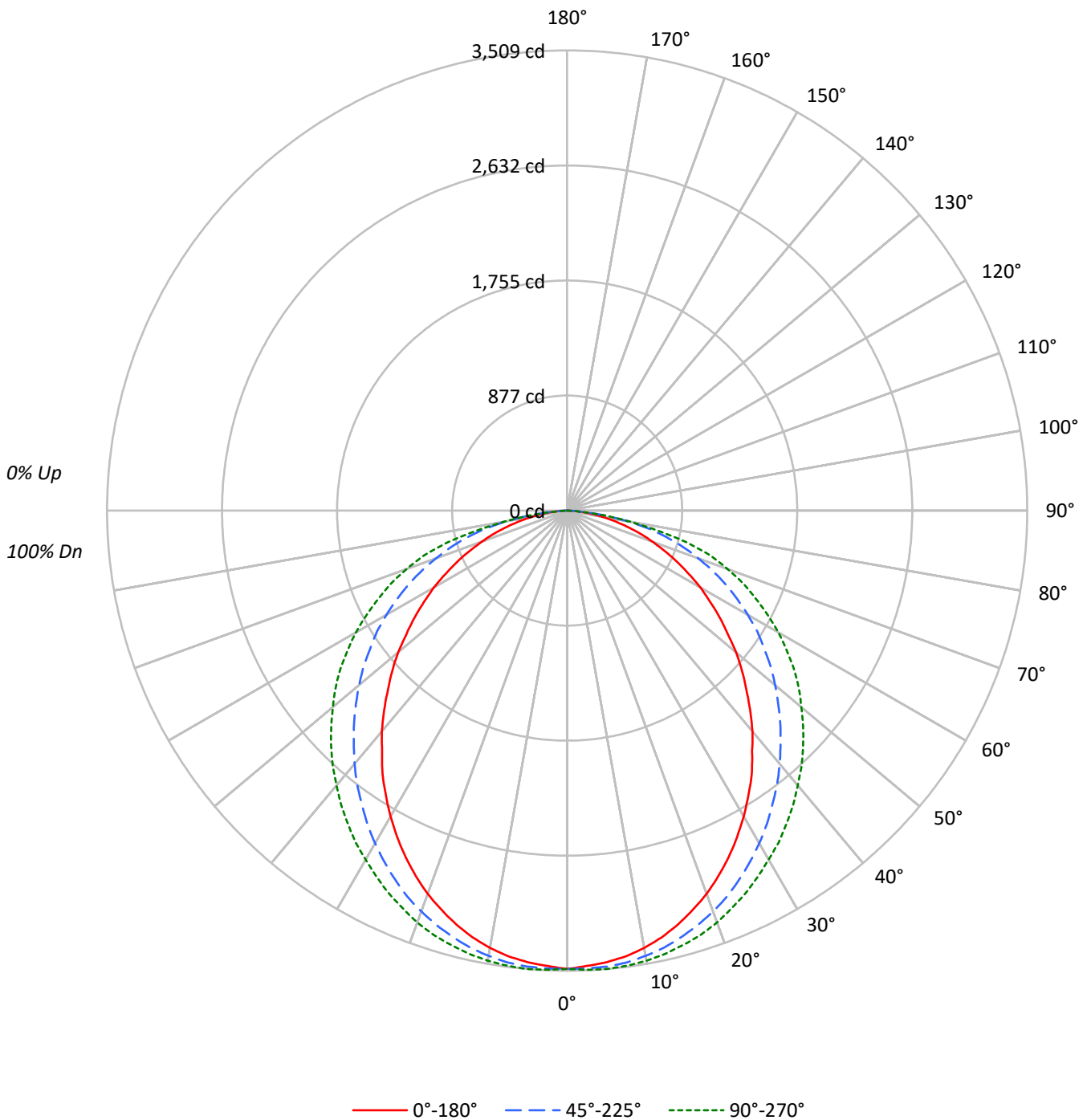
Input Watts (W): 79.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P475281

CATALOG NUMBER: 22CZ2-105VHE-SQR-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P475281

CATALOG NUMBER: 22CZ2-105VHE-SQR-UNV-L835-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	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9404	9404	9404
5°	9338	9427	9480
10°	9252	9420	9524
15°	9102	9379	9551
20°	8906	9316	9573
25°	8657	9220	9559
30°	8366	9104	9546
35°	8065	8969	9578
40°	7723	8858	9609
45°	7355	8746	9686
50°	7037	8667	9760
55°	6661	8598	9915
60°	6312	8563	10019
65°	5895	8495	10097
70°	5415	8368	10236
75°	4890	8145	9872
80°	4193	7214	7434
85°	3375	4252	3375



TEST NUMBER: P475281

CATALOG NUMBER: 22CZ2-105VHE-SQR-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.3	3.3
10°-20°	947.3	9.5
20°-30°	1422.8	14.2
30°-40°	1696.9	17.0
40°-50°	1754.4	17.5
50°-60°	1613.0	16.1
60°-70°	1284.1	12.8
70°-80°	784.5	7.8
80°-90°	170.5	1.7
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°	2701.4	27.0
0°-40°	4398.3	44.0
0°-60°	7765.7	77.6
0°-90°	10004.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10004.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3495	3495	3495	3495	3495	
5°	3457	3466	3490	3505	3509	328
15°	3267	3305	3366	3414	3428	920
25°	2916	2987	3105	3191	3219	1341
35°	2455	2559	2730	2873	2916	1532
45°	1933	2070	2298	2484	2545	1494
55°	1420	1576	1833	2042	2113	1270
65°	926	1083	1334	1520	1586	917
75°	470	608	783	921	950	501
85°	109	133	138	119	109	126
90°	0	0	0	0	0	



TEST NUMBER: P475281

CATALOG NUMBER: 22CZ2-105VHE-SQR-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3494.7	3494.7	3494.7	3494.7	3494.7
2.5°	3475.8	3480.5	3494.7	3504.7	3504.7
5°	3456.9	3466.4	3490.0	3504.7	3509.4
7.5°	3428.5	3442.7	3475.8	3494.7	3500.0
10°	3386.0	3404.9	3447.4	3475.8	3485.3
12.5°	3333.4	3361.8	3414.3	3452.2	3461.6
15°	3267.2	3305.0	3366.5	3414.3	3428.5
17.5°	3191.0	3238.3	3314.5	3371.8	3390.7
20°	3110.1	3157.9	3253.0	3319.2	3342.9
22.5°	3015.5	3077.0	3186.3	3262.5	3281.4
25°	2915.7	2986.6	3105.4	3191.0	3219.4
27.5°	2806.4	2892.0	3020.3	3124.8	3148.5
30°	2692.4	2782.8	2929.9	3043.9	3072.3
32.5°	2573.6	2678.2	2834.8	2963.0	3001.3
35°	2454.9	2559.4	2730.2	2873.1	2915.7
37.5°	2317.2	2440.7	2630.9	2778.0	2830.0
40°	2198.5	2317.2	2521.6	2682.9	2735.5
42.5°	2065.5	2193.7	2407.6	2583.1	2645.1
45°	1932.6	2070.2	2298.3	2483.8	2545.2
47.5°	1809.1	1946.8	2184.3	2379.2	2440.7
50°	1680.9	1823.3	2070.2	2269.9	2331.4
52.5°	1543.2	1699.8	1956.2	2155.9	2227.4
55°	1419.7	1576.3	1832.7	2041.9	2113.3
57.5°	1291.5	1452.9	1719.3	1918.4	1985.1
60°	1172.8	1329.4	1591.0	1785.5	1861.6
62.5°	1044.6	1205.9	1462.3	1652.5	1724.0
65°	925.8	1082.9	1334.1	1519.6	1585.8
67.5°	807.1	964.2	1201.2	1377.2	1452.9
70°	688.3	845.4	1063.5	1234.8	1301.0
72.5°	584.3	722.0	930.6	1087.7	1149.1
75°	470.3	607.9	783.4	921.1	949.5
77.5°	365.7	489.2	636.3	697.8	707.8
80°	270.6	365.7	465.5	479.7	479.7
82.5°	180.2	251.7	289.5	294.2	289.5
85°	109.3	132.9	137.7	118.8	109.3
87.5°	37.8	37.8	23.6	14.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)