

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: P474802

Luminaire Tested: **22CZ2-24VHE-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474802
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-UNV-L835-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

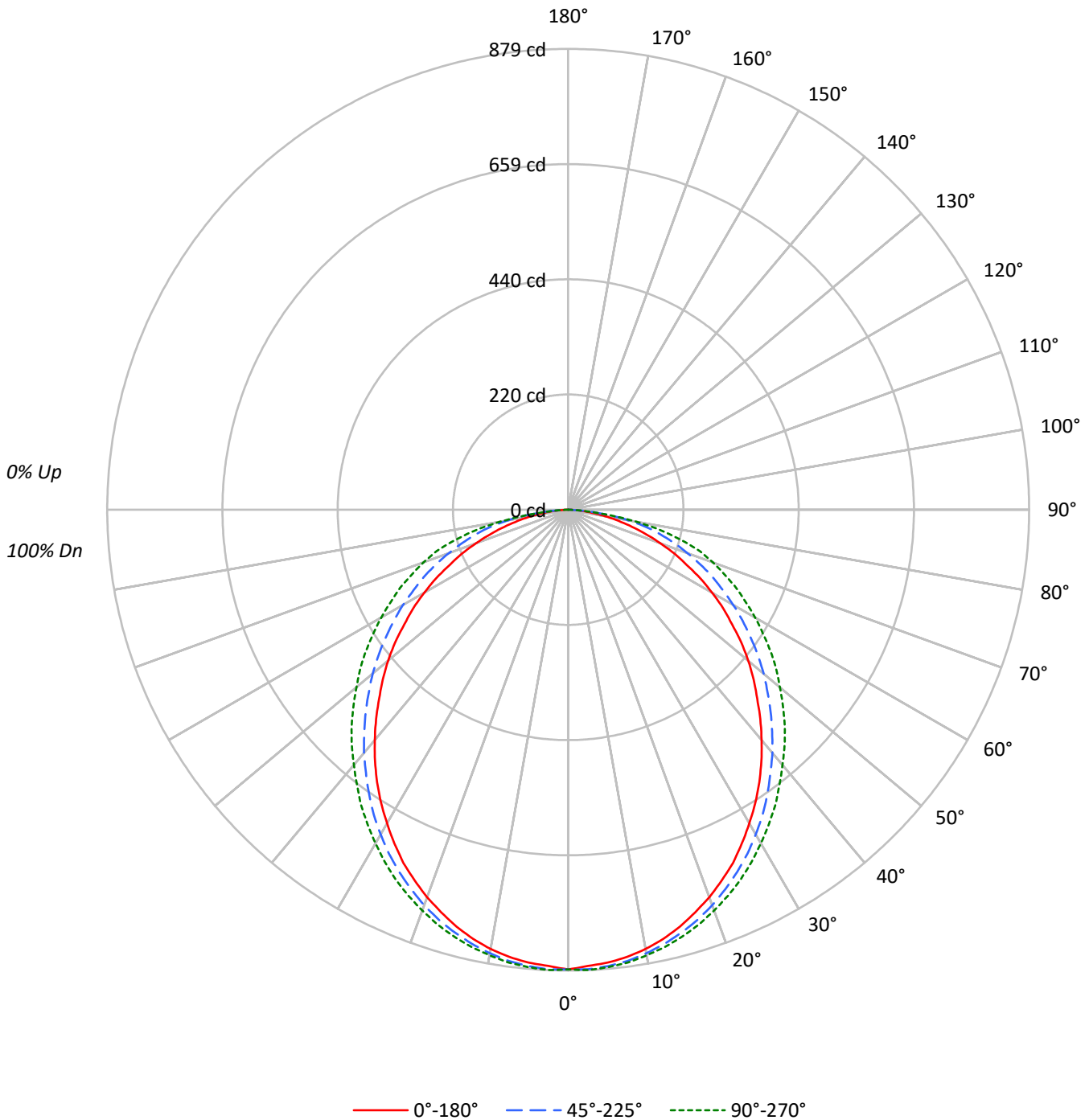
Lumens per Lamp: N/A
Luminaire Lumens: 2417.9 lumens
Efficiency: N/A
Efficacy: 146.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 16.5
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: P474802
CATALOG NUMBER: 22CZ2-24VHE-UNV-L835-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474802

CATALOG NUMBER: 22CZ2-24VHE-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	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°	2360	2360	2360
5°	2342	2360	2366
10°	2325	2347	2358
15°	2293	2326	2347
20°	2252	2299	2330
25°	2208	2264	2311
30°	2147	2223	2283
35°	2087	2175	2261
40°	2016	2127	2233
45°	1939	2079	2223
50°	1876	2037	2205
55°	1788	1992	2210
60°	1708	1958	2217
65°	1588	1933	2252
70°	1467	1906	2308
75°	1312	1896	2322
80°	1100	1798	2027
85°	852	1232	1152



TEST NUMBER: P474802

CATALOG NUMBER: 22CZ2-24VHE-UNV-L835-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.8	3.4
10°-20°	235.2	9.7
20°-30°	350.7	14.5
30°-40°	413.9	17.1
40°-50°	421.9	17.4
50°-60°	380.5	15.7
60°-70°	299.0	12.4
70°-80°	187.2	7.7
80°-90°	46.7	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°	668.7	27.7
0°-40°	1082.6	44.8
0°-60°	1884.9	78.0
0°-90°	2417.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2417.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	867	869	874	876	876	82
15°	823	827	835	841	843	232
25°	744	749	762	774	778	342
35°	635	643	662	681	688	397
45°	510	521	546	573	584	394
55°	381	393	425	457	471	342
65°	249	265	304	337	354	249
75°	126	145	182	215	223	134
85°	28	35	40	40	37	33
90°	0	0	0	0	0	



TEST NUMBER: P474802

CATALOG NUMBER: 22CZ2-24VHE-UNV-L835-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	876.9	876.9	876.9	876.9	876.9
2.5°	871.2	873.3	877.4	878.9	878.9
5°	867.1	869.2	873.8	875.8	875.8
7.5°	860.5	862.5	868.2	870.7	871.2
10°	850.8	853.4	859.0	863.1	863.1
12.5°	838.5	841.1	848.2	853.4	853.9
15°	823.2	826.8	835.0	841.1	842.6
17.5°	805.3	810.9	820.1	827.8	829.3
20°	786.4	792.0	802.8	811.5	813.5
22.5°	765.5	770.6	783.3	794.1	796.6
25°	743.5	749.1	762.4	774.1	778.2
27.5°	717.4	724.1	739.9	753.2	757.3
30°	690.9	699.0	715.4	730.2	734.8
32.5°	663.8	671.4	689.8	705.7	711.8
35°	635.2	643.3	662.2	680.6	688.3
37.5°	605.0	613.2	633.6	654.6	661.7
40°	573.8	583.5	605.5	628.0	635.7
42.5°	542.2	552.4	575.4	600.4	610.6
45°	509.5	520.7	546.2	572.8	584.1
47.5°	479.8	489.0	515.6	544.7	555.4
50°	448.1	456.8	486.5	515.6	526.8
52.5°	415.9	424.1	455.8	486.5	500.3
55°	381.2	393.0	424.6	457.3	471.1
57.5°	350.5	361.3	394.0	427.2	440.5
60°	317.3	328.6	363.8	397.5	411.9
62.5°	284.1	296.4	332.1	368.4	381.7
65°	249.4	264.7	303.5	337.3	353.6
67.5°	219.7	234.5	272.9	308.1	322.4
70°	186.5	203.9	242.2	278.0	293.3
72.5°	155.3	172.7	212.1	247.8	263.2
75°	126.2	145.1	182.4	215.1	223.3
77.5°	98.1	116.0	153.3	172.2	180.9
80°	71.0	88.4	116.0	128.8	130.8
82.5°	48.0	62.9	78.7	82.3	80.2
85°	27.6	35.3	39.9	39.9	37.3
87.5°	11.2	11.2	9.7	6.1	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)