

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: P474889

Luminaire Tested: **22CZ2-24VHE-S-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474889
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-24VHE-S-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2380.2 lumens
Efficiency: N/A
Efficacy: 144.3 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

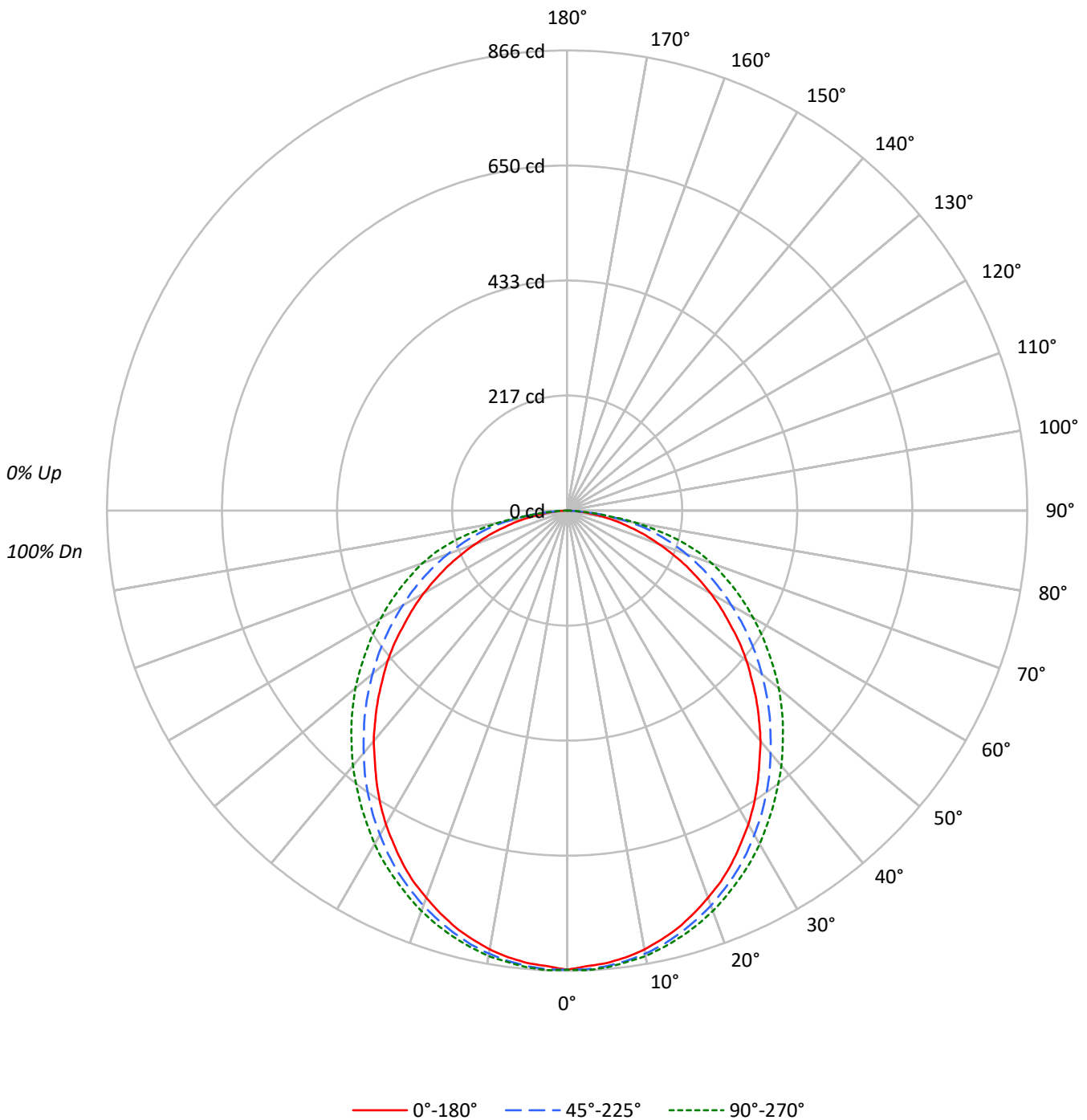
Input Watts (W): 16.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P474889

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474889

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L830-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	88	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2325	2325	2325
5°	2309	2324	2331
10°	2292	2314	2326
15°	2263	2293	2312
20°	2220	2266	2296
25°	2176	2232	2273
30°	2119	2189	2252
35°	2053	2144	2223
40°	1989	2092	2204
45°	1916	2047	2186
50°	1847	2002	2177
55°	1759	1962	2168
60°	1680	1922	2176
65°	1577	1900	2208
70°	1441	1876	2279
75°	1293	1862	2282
80°	1089	1759	2027
85°	818	1192	1102



TEST NUMBER: P474889

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	3.4
10°-20°	231.8	9.7
20°-30°	345.5	14.5
30°-40°	407.7	17.1
40°-50°	415.4	17.5
50°-60°	374.6	15.7
60°-70°	294.2	12.4
70°-80°	183.9	7.7
80°-90°	45.3	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°	658.9	27.7
0°-40°	1066.6	44.8
0°-60°	1856.7	78.0
0°-90°	2380.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2380.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	855	856	860	862	863	81
15°	812	815	823	829	830	229
25°	733	737	752	763	766	337
35°	625	634	653	670	677	391
45°	503	512	538	564	574	388
55°	375	387	418	450	462	336
65°	248	261	298	332	347	245
75°	124	142	179	210	220	133
85°	26	34	39	38	36	32
90°	0	0	0	0	0	



TEST NUMBER: P474889

CATALOG NUMBER: 22CZ2-24VHE-S-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	864.0	864.0	864.0	864.0	864.0
2.5°	858.2	860.0	864.0	865.7	865.7
5°	854.8	856.5	860.5	862.3	862.8
7.5°	847.9	850.2	854.8	857.1	857.1
10°	838.7	841.5	846.7	850.2	851.3
12.5°	826.0	829.4	836.4	840.4	841.5
15°	812.2	815.0	823.1	828.9	830.0
17.5°	794.3	798.9	807.6	815.0	816.8
20°	775.3	780.5	791.4	800.1	801.8
22.5°	755.7	759.7	771.8	782.2	784.5
25°	732.7	736.7	751.7	762.6	765.5
27.5°	707.3	714.2	729.2	741.9	746.5
30°	682.0	688.9	704.4	719.4	724.6
32.5°	654.3	661.8	679.7	695.2	700.4
35°	625.0	633.6	652.6	670.5	676.8
37.5°	594.4	604.2	625.5	644.5	651.5
40°	566.2	573.1	595.6	617.5	627.3
42.5°	534.5	543.7	566.2	591.0	600.2
45°	503.4	512.1	538.0	563.9	574.3
47.5°	471.2	482.1	508.0	536.8	547.2
50°	441.2	450.4	478.1	508.6	520.1
52.5°	409.0	418.8	448.7	480.4	490.8
55°	375.0	387.1	418.2	450.4	462.0
57.5°	343.9	355.4	388.2	421.6	433.7
60°	312.2	323.7	357.1	391.1	404.4
62.5°	278.8	292.0	328.3	361.2	376.1
65°	247.7	260.9	298.4	331.8	346.8
67.5°	214.8	230.4	267.8	303.0	318.0
70°	183.2	201.6	238.5	273.0	289.7
72.5°	154.9	169.9	208.5	244.8	258.6
75°	124.4	141.7	179.1	209.7	219.5
77.5°	98.5	113.5	149.2	169.3	175.7
80°	70.3	87.0	113.5	125.6	130.8
82.5°	46.7	60.5	77.2	79.5	78.3
85°	26.5	34.0	38.6	38.0	35.7
87.5°	10.4	11.5	8.6	5.2	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)