

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: P474783

Luminaire Tested: **22CZ2-80VHE-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474783
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

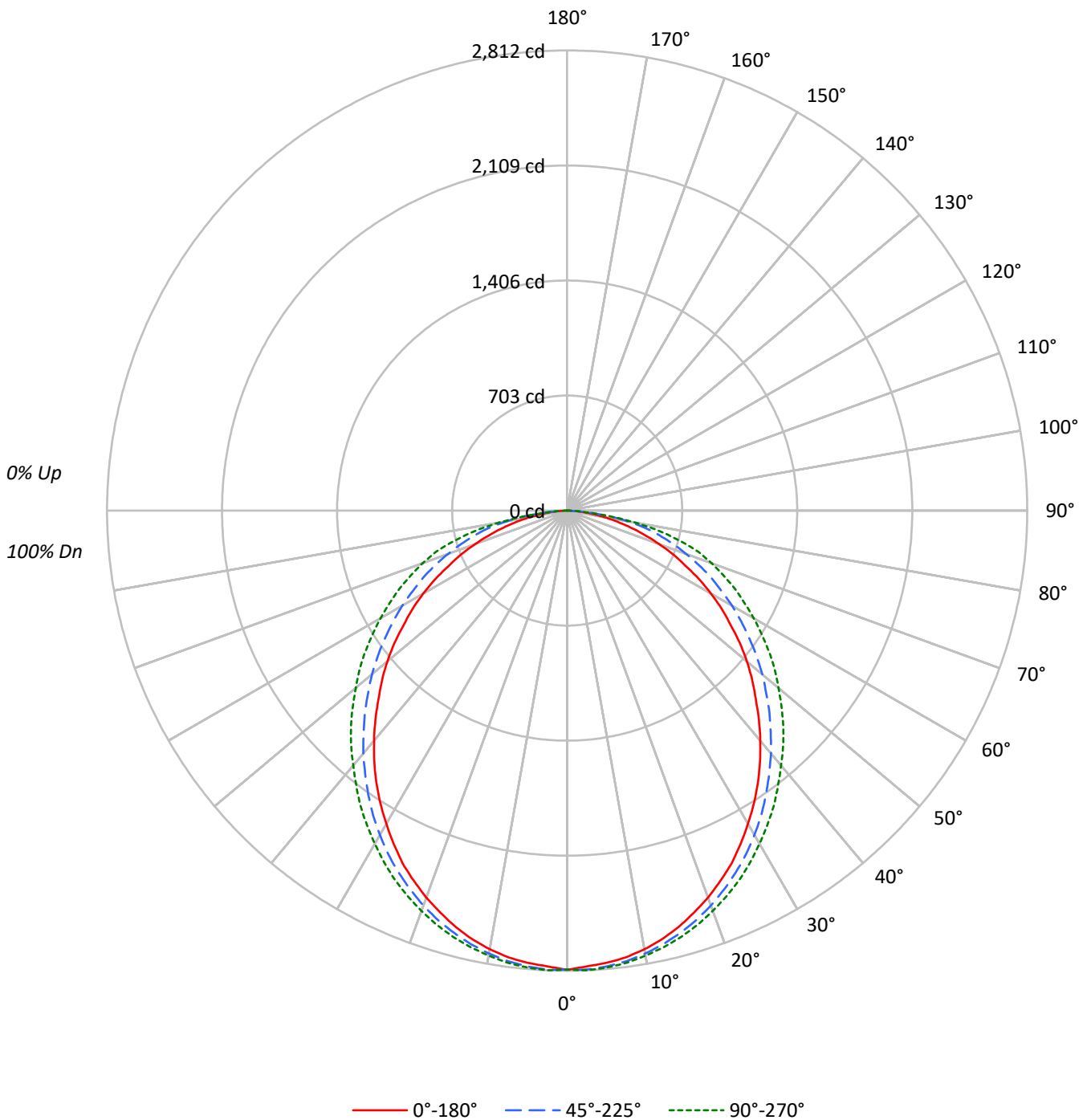
Lumens per Lamp: N/A
Luminaire Lumens: 7736.1 lumens
Efficiency: N/A
Efficacy: 131.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.7
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: P474783
CATALOG NUMBER: 22CZ2-80VHE-UNV-L830-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P474783

CATALOG NUMBER: 22CZ2-80VHE-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	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°	7550	7550	7550
5°	7494	7552	7569
10°	7438	7510	7546
15°	7338	7442	7511
20°	7205	7355	7454
25°	7063	7243	7393
30°	6868	7112	7305
35°	6676	6960	7234
40°	6450	6806	7144
45°	6203	6651	7112
50°	6002	6516	7057
55°	5722	6374	7072
60°	5464	6265	7092
65°	5080	6183	7204
70°	4695	6097	7383
75°	4198	6069	7429
80°	3522	5751	6485
85°	2726	3937	3683



TEST NUMBER: P474783

CATALOG NUMBER: 22CZ2-80VHE-UNV-L830-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.0	3.4
10°-20°	752.4	9.7
20°-30°	1121.9	14.5
30°-40°	1324.4	17.1
40°-50°	1349.8	17.4
50°-60°	1217.3	15.7
60°-70°	956.8	12.4
70°-80°	599.0	7.7
80°-90°	149.4	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°	2139.4	27.7
0°-40°	3463.8	44.8
0°-60°	6030.9	78.0
0°-90°	7736.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7736.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2806	2806	2806	2806	2806	
5°	2774	2781	2796	2802	2802	263
15°	2634	2645	2671	2691	2696	742
25°	2379	2397	2439	2477	2490	1094
35°	2032	2058	2119	2178	2202	1270
45°	1630	1666	1748	1833	1869	1261
55°	1220	1257	1359	1463	1507	1095
65°	798	847	971	1079	1131	795
75°	404	464	584	688	714	429
85°	88	113	128	128	119	107
90°	0	0	0	0	0	



TEST NUMBER: P474783

CATALOG NUMBER: 22CZ2-80VHE-UNV-L830-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2805.5	2805.5	2805.5	2805.5	2805.5
2.5°	2787.5	2794.1	2807.1	2812.0	2812.0
5°	2774.4	2781.0	2795.7	2802.2	2802.2
7.5°	2753.2	2759.7	2777.7	2785.9	2787.5
10°	2722.1	2730.3	2748.3	2761.4	2761.4
12.5°	2682.9	2691.1	2714.0	2730.3	2731.9
15°	2633.8	2645.3	2671.4	2691.1	2696.0
17.5°	2576.6	2594.6	2624.0	2648.6	2653.5
20°	2516.1	2534.1	2568.4	2596.2	2602.8
22.5°	2449.1	2465.4	2506.3	2540.7	2548.8
25°	2378.8	2396.8	2439.3	2476.9	2490.0
27.5°	2295.4	2316.7	2367.4	2409.9	2422.9
30°	2210.4	2236.6	2288.9	2336.3	2351.0
32.5°	2123.8	2148.3	2207.1	2257.8	2277.4
35°	2032.2	2058.4	2118.8	2177.7	2202.2
37.5°	1935.7	1961.9	2027.3	2094.3	2117.2
40°	1836.0	1867.1	1937.4	2009.3	2033.8
42.5°	1734.6	1767.3	1840.9	1921.0	1953.7
45°	1630.0	1666.0	1747.7	1832.7	1868.7
47.5°	1535.2	1564.6	1649.6	1742.8	1777.1
50°	1433.8	1461.6	1556.4	1649.6	1685.6
52.5°	1330.8	1357.0	1458.3	1556.4	1600.6
55°	1219.6	1257.2	1358.6	1463.2	1507.4
57.5°	1121.5	1155.9	1260.5	1366.8	1409.3
60°	1015.3	1051.2	1164.1	1272.0	1317.7
62.5°	909.0	948.2	1062.7	1178.8	1221.3
65°	797.8	846.9	971.1	1079.0	1131.4
67.5°	703.0	750.4	873.0	985.9	1031.6
70°	596.7	652.3	774.9	889.4	938.4
72.5°	497.0	552.6	678.5	792.9	842.0
75°	403.8	464.3	583.7	688.3	714.5
77.5°	313.9	371.1	490.5	551.0	578.8
80°	227.3	282.8	371.1	412.0	418.5
82.5°	153.7	201.1	251.8	263.2	256.7
85°	88.3	112.8	127.5	127.5	119.3
87.5°	36.0	36.0	31.1	19.6	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)