

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: P475135

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475135
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-100VHE-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7833.2 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

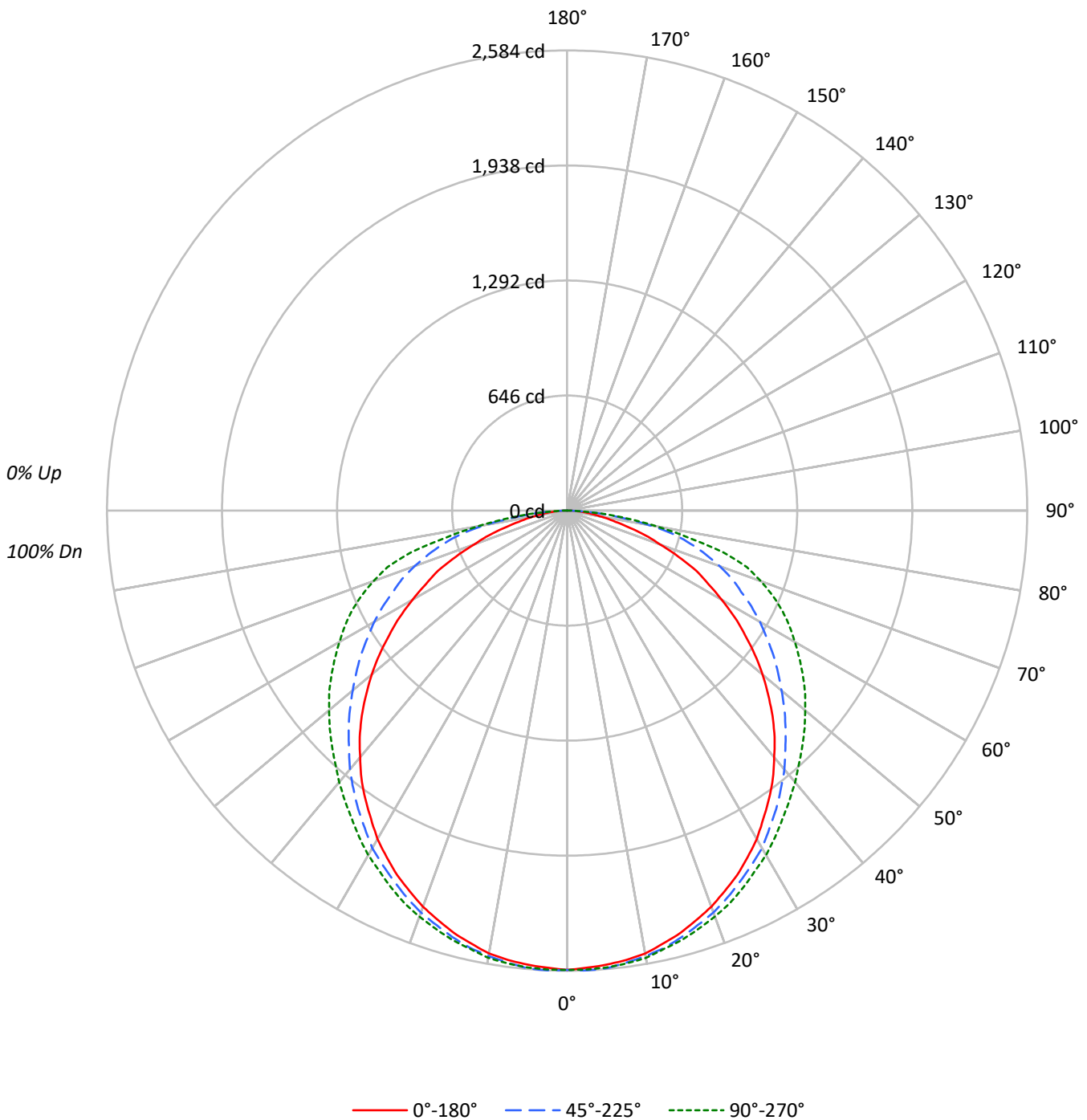
Input Watts (W): 75.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6941	6941	6941
5°	6914	6967	6954
10°	6900	6941	6968
15°	6841	6911	6952
20°	6779	6877	6947
25°	6706	6822	6940
30°	6617	6802	6940
35°	6493	6721	6932
40°	6353	6665	6995
45°	6206	6601	7108
50°	5999	6579	7302
55°	5726	6631	7581
60°	5399	6728	7952
65°	5097	6860	8497
70°	4355	7153	9098
75°	3648	7452	9453
80°	2991	7197	7886
85°	2587	5335	5795



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.5	3.1
10°-20°	699.3	8.9
20°-30°	1059.8	13.5
30°-40°	1279.7	16.3
40°-50°	1344.7	17.2
50°-60°	1265.2	16.2
60°-70°	1054.9	13.5
70°-80°	699.0	8.9
80°-90°	186.3	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°	2003.6	25.6
0°-40°	3283.2	41.9
0°-60°	5893.1	75.2
0°-90°	7833.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7833.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2579	2579	2579	2579	2579	
5°	2560	2564	2579	2579	2574	243
15°	2456	2466	2481	2491	2495	692
25°	2258	2273	2298	2327	2337	1040
35°	1976	1996	2046	2090	2110	1236
45°	1631	1655	1735	1823	1868	1256
55°	1220	1275	1413	1556	1616	1092
65°	800	870	1077	1255	1334	779
75°	351	489	717	865	909	381
85°	84	128	173	188	188	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2579.2	2579.2	2579.2	2579.2	2579.2
2.5°	2569.6	2574.4	2584.5	2584.5	2579.2
5°	2559.6	2564.4	2579.2	2579.2	2574.4
7.5°	2544.7	2550.0	2559.6	2569.6	2564.4
10°	2525.1	2529.9	2540.0	2550.0	2550.0
12.5°	2490.6	2495.4	2515.1	2520.3	2520.3
15°	2455.7	2465.7	2480.6	2490.6	2495.4
17.5°	2411.6	2421.2	2440.8	2461.0	2461.0
20°	2367.1	2376.7	2401.6	2421.2	2426.0
22.5°	2312.5	2327.4	2352.3	2376.7	2386.7
25°	2258.4	2273.3	2297.7	2327.4	2337.4
27.5°	2193.8	2208.6	2243.6	2278.1	2282.8
30°	2129.6	2144.5	2189.0	2218.7	2233.5
32.5°	2050.6	2070.3	2114.8	2159.3	2174.2
35°	1976.4	1996.5	2045.8	2090.4	2110.0
37.5°	1897.4	1917.1	1971.6	2026.2	2050.6
40°	1808.4	1833.3	1897.4	1956.8	1991.3
42.5°	1724.6	1749.5	1813.6	1892.6	1927.1
45°	1630.7	1655.2	1734.6	1823.2	1867.7
47.5°	1531.6	1561.3	1655.2	1764.3	1808.4
50°	1433.0	1467.5	1571.4	1694.9	1744.2
52.5°	1329.1	1373.6	1492.4	1626.0	1684.8
55°	1220.4	1275.0	1413.4	1556.5	1615.9
57.5°	1116.5	1166.3	1329.1	1482.3	1546.5
60°	1003.1	1067.2	1250.1	1408.1	1477.5
62.5°	894.4	963.8	1166.3	1334.4	1408.1
65°	800.5	869.5	1077.3	1254.9	1334.4
67.5°	677.0	770.8	1003.1	1171.1	1250.1
70°	553.5	681.8	909.2	1082.1	1156.3
72.5°	459.6	583.2	815.4	988.2	1057.6
75°	350.9	489.3	716.7	864.7	909.2
77.5°	261.9	405.1	612.8	687.1	691.8
80°	193.0	311.2	464.4	489.3	508.9
82.5°	133.6	217.4	301.6	330.8	340.9
85°	83.8	128.3	172.8	187.7	187.7
87.5°	44.5	49.3	59.4	59.4	59.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)