

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: P473990

Luminaire Tested: **24CZ2-80VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473990
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-80VHE-S-UNV-L830-CD1-U
Description: 2'X4' 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: 7893.2 lumens
Efficiency: N/A
Efficacy: 140.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

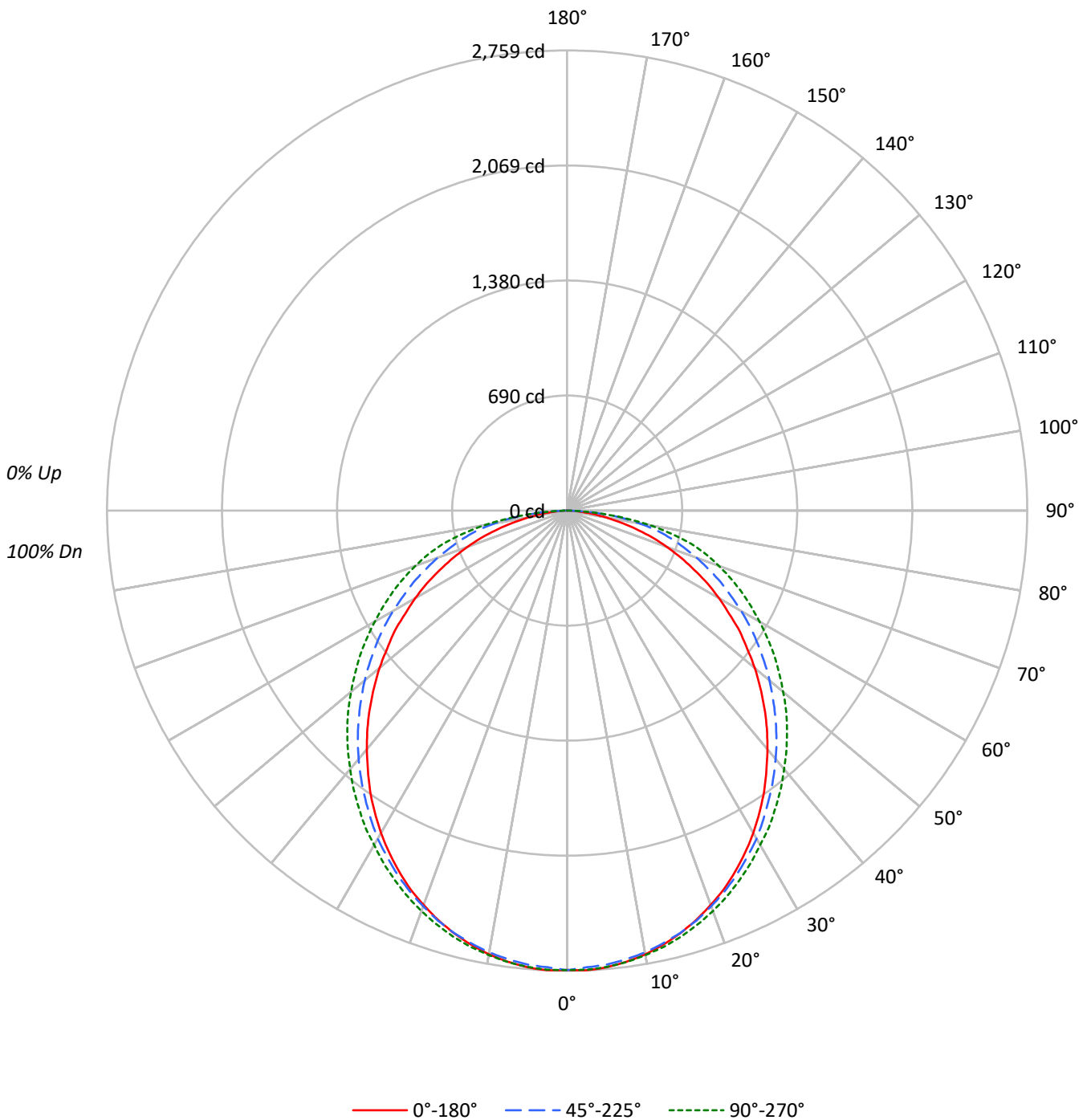
Input Watts (W): 56.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3707	3707	3707
5°	3712	3690	3709
10°	3691	3675	3697
15°	3653	3652	3682
20°	3603	3614	3659
25°	3544	3574	3630
30°	3469	3529	3596
35°	3382	3467	3575
40°	3282	3416	3555
45°	3182	3362	3548
50°	3075	3316	3539
55°	2965	3275	3558
60°	2830	3245	3583
65°	2679	3232	3670
70°	2499	3249	3800
75°	2224	3343	4003
80°	1819	3415	3908
85°	1281	2983	3043



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	260.5	3.3
10°-20°	741.8	9.4
20°-30°	1112.0	14.1
30°-40°	1324.4	16.8
40°-50°	1365.6	17.3
50°-60°	1246.1	15.8
60°-70°	996.4	12.6
70°-80°	650.9	8.2
80°-90°	195.4	2.5
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°	2114.3	26.8
0°-40°	3438.7	43.6
0°-60°	6050.4	76.7
0°-90°	7893.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7893.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2755	2755	2755	2755	2755	
5°	2749	2743	2732	2749	2746	261
15°	2623	2624	2622	2644	2644	739
25°	2387	2391	2408	2443	2445	1099
35°	2059	2073	2111	2164	2177	1286
45°	1672	1702	1767	1841	1864	1290
55°	1264	1300	1396	1488	1517	1126
65°	841	898	1015	1115	1153	834
75°	428	499	643	747	770	455
85°	83	149	193	197	197	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2755.1	2755.1	2755.1	2755.1	2755.1
2.5°	2759.0	2755.1	2740.8	2757.7	2755.1
5°	2748.6	2743.4	2731.7	2748.6	2746.0
7.5°	2727.8	2725.2	2713.6	2733.0	2730.4
10°	2701.9	2699.3	2690.2	2709.7	2705.8
12.5°	2665.6	2664.3	2657.8	2681.2	2678.6
15°	2622.8	2624.1	2621.5	2643.6	2643.6
17.5°	2573.6	2572.3	2577.4	2604.7	2602.1
20°	2516.5	2517.8	2524.3	2555.4	2555.4
22.5°	2456.9	2455.6	2469.8	2501.0	2503.5
25°	2386.9	2390.7	2407.6	2442.6	2445.2
27.5°	2311.7	2318.1	2338.9	2379.1	2383.0
30°	2232.6	2240.4	2271.5	2309.1	2314.3
32.5°	2145.7	2162.6	2191.1	2239.1	2252.0
35°	2058.8	2073.1	2110.7	2163.9	2176.8
37.5°	1962.9	1986.2	2029.0	2087.4	2104.2
40°	1868.3	1891.6	1944.8	2005.7	2023.8
42.5°	1772.3	1797.0	1857.9	1926.6	1946.0
45°	1672.5	1702.3	1767.1	1841.0	1864.4
47.5°	1570.1	1605.1	1675.1	1755.5	1781.4
50°	1468.9	1503.9	1584.3	1667.3	1690.6
52.5°	1360.0	1404.1	1489.7	1579.1	1602.5
55°	1264.1	1300.4	1396.3	1488.4	1516.9
57.5°	1151.3	1200.6	1303.0	1396.3	1423.6
60°	1051.5	1096.8	1205.7	1300.4	1331.5
62.5°	950.3	997.0	1105.9	1213.5	1242.0
65°	841.4	898.5	1015.2	1115.0	1152.6
67.5°	737.7	797.3	916.6	1022.9	1061.8
70°	635.3	696.2	825.9	934.8	965.9
72.5°	534.2	597.7	732.5	838.8	875.1
75°	427.8	499.2	643.1	746.8	770.1
77.5°	328.0	407.1	552.3	622.3	639.2
80°	234.7	321.5	440.8	491.4	504.3
82.5°	154.3	238.6	329.3	356.5	352.6
85°	83.0	149.1	193.2	197.1	197.1
87.5°	32.4	59.6	60.9	46.7	44.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)