

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: P473993

Luminaire Tested: **24CZ2-95VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473993
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-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: 9393.2 lumens
Efficiency: N/A
Efficacy: 139.0 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

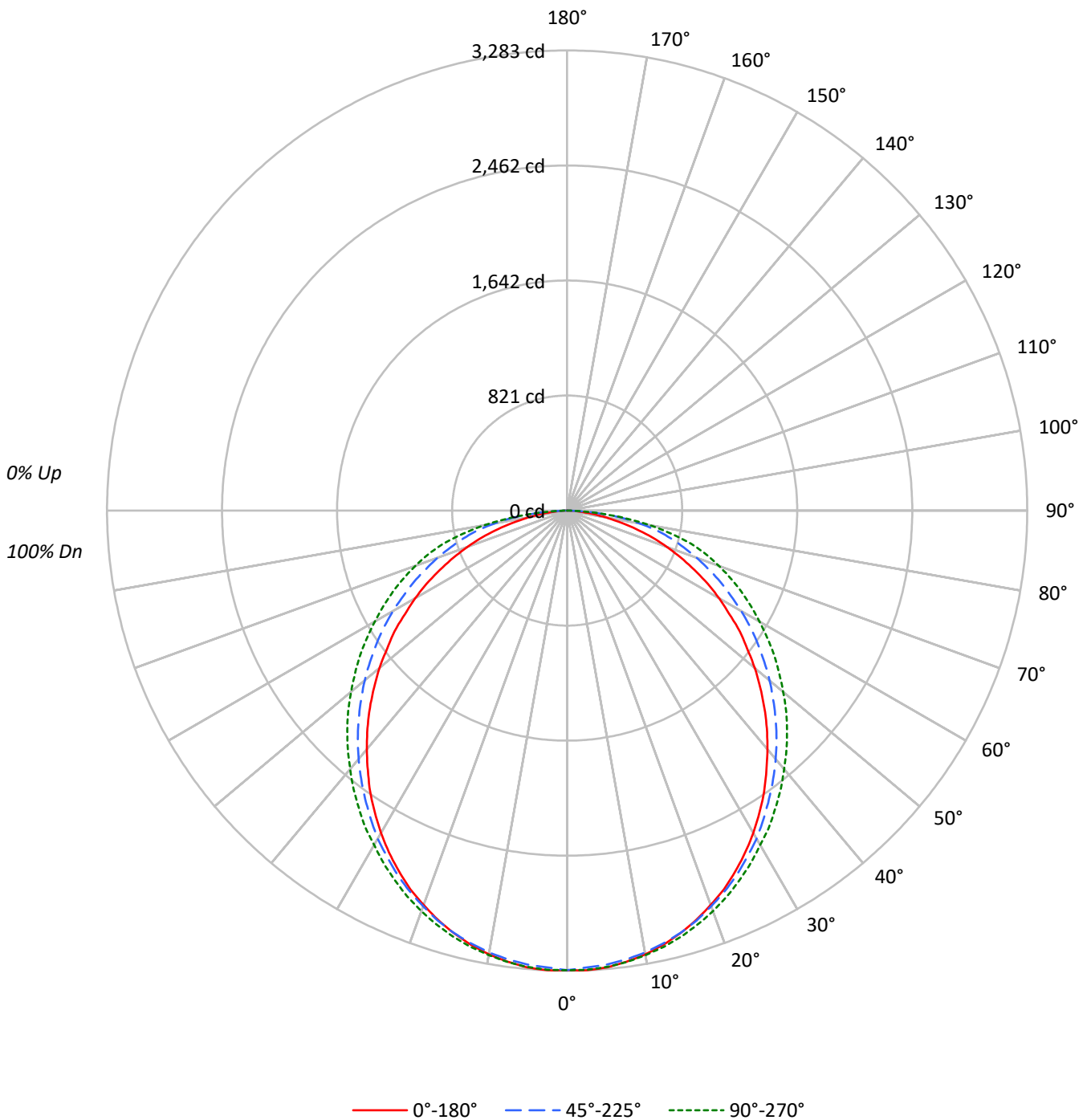
Input Watts (W): 67.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4411	4411	4411
5°	4418	4391	4414
10°	4393	4374	4399
15°	4348	4346	4382
20°	4288	4301	4354
25°	4217	4254	4320
30°	4128	4200	4279
35°	4024	4126	4255
40°	3905	4065	4230
45°	3787	4002	4222
50°	3659	3947	4211
55°	3529	3898	4235
60°	3367	3861	4264
65°	3188	3846	4367
70°	2974	3866	4522
75°	2647	3978	4764
80°	2164	4065	4651
85°	1524	3549	3620



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	310.0	3.3
10°-20°	882.8	9.4
20°-30°	1323.3	14.1
30°-40°	1576.1	16.8
40°-50°	1625.1	17.3
50°-60°	1482.9	15.8
60°-70°	1185.8	12.6
70°-80°	774.6	8.2
80°-90°	232.6	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°	2516.1	26.8
0°-40°	4092.3	43.6
0°-60°	7200.3	76.7
0°-90°	9393.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9393.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3279	3279	3279	3279	3279	
5°	3271	3265	3251	3271	3268	310
15°	3121	3123	3120	3146	3146	880
25°	2840	2845	2865	2907	2910	1308
35°	2450	2467	2512	2575	2590	1531
45°	1990	2026	2103	2191	2219	1535
55°	1504	1548	1662	1771	1805	1340
65°	1001	1069	1208	1327	1372	993
75°	509	594	765	889	916	541
85°	99	177	230	234	234	125
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3278.7	3278.7	3278.7	3278.7	3278.7
2.5°	3283.3	3278.7	3261.7	3281.7	3278.7
5°	3270.9	3264.8	3250.9	3270.9	3267.9
7.5°	3246.3	3243.2	3229.3	3252.4	3249.3
10°	3215.4	3212.3	3201.5	3224.7	3220.0
12.5°	3172.2	3170.7	3162.9	3190.7	3187.6
15°	3121.3	3122.8	3119.7	3146.0	3146.0
17.5°	3062.7	3061.1	3067.3	3099.7	3096.6
20°	2994.8	2996.3	3004.0	3041.1	3041.1
22.5°	2923.8	2922.3	2939.2	2976.3	2979.3
25°	2840.5	2845.1	2865.2	2906.8	2909.9
27.5°	2751.0	2758.7	2783.4	2831.2	2835.9
30°	2656.9	2666.1	2703.2	2747.9	2754.1
32.5°	2553.5	2573.6	2607.5	2664.6	2680.0
35°	2450.1	2467.1	2511.8	2575.1	2590.5
37.5°	2336.0	2363.7	2414.6	2484.1	2504.1
40°	2223.3	2251.1	2314.3	2386.9	2408.5
42.5°	2109.1	2138.5	2211.0	2292.7	2315.9
45°	1990.3	2025.8	2103.0	2190.9	2218.7
47.5°	1868.5	1910.1	1993.4	2089.1	2119.9
50°	1748.1	1789.8	1885.4	1984.2	2011.9
52.5°	1618.5	1671.0	1772.8	1879.3	1907.0
55°	1504.3	1547.5	1661.7	1771.2	1805.2
57.5°	1370.1	1428.7	1550.6	1661.7	1694.1
60°	1251.3	1305.3	1434.9	1547.5	1584.6
62.5°	1130.9	1186.5	1316.1	1444.2	1478.1
65°	1001.3	1069.2	1208.1	1326.9	1371.6
67.5°	877.9	948.9	1090.8	1217.3	1263.6
70°	756.0	828.5	982.8	1112.4	1149.5
72.5°	635.7	711.3	871.7	998.3	1041.5
75°	509.2	594.0	765.3	888.7	916.5
77.5°	390.4	484.5	657.3	740.6	760.6
80°	279.3	382.6	524.6	584.8	600.2
82.5°	183.6	283.9	391.9	424.3	419.7
85°	98.7	177.4	229.9	234.5	234.5
87.5°	38.6	71.0	72.5	55.5	52.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)