

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: P473793

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473793
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

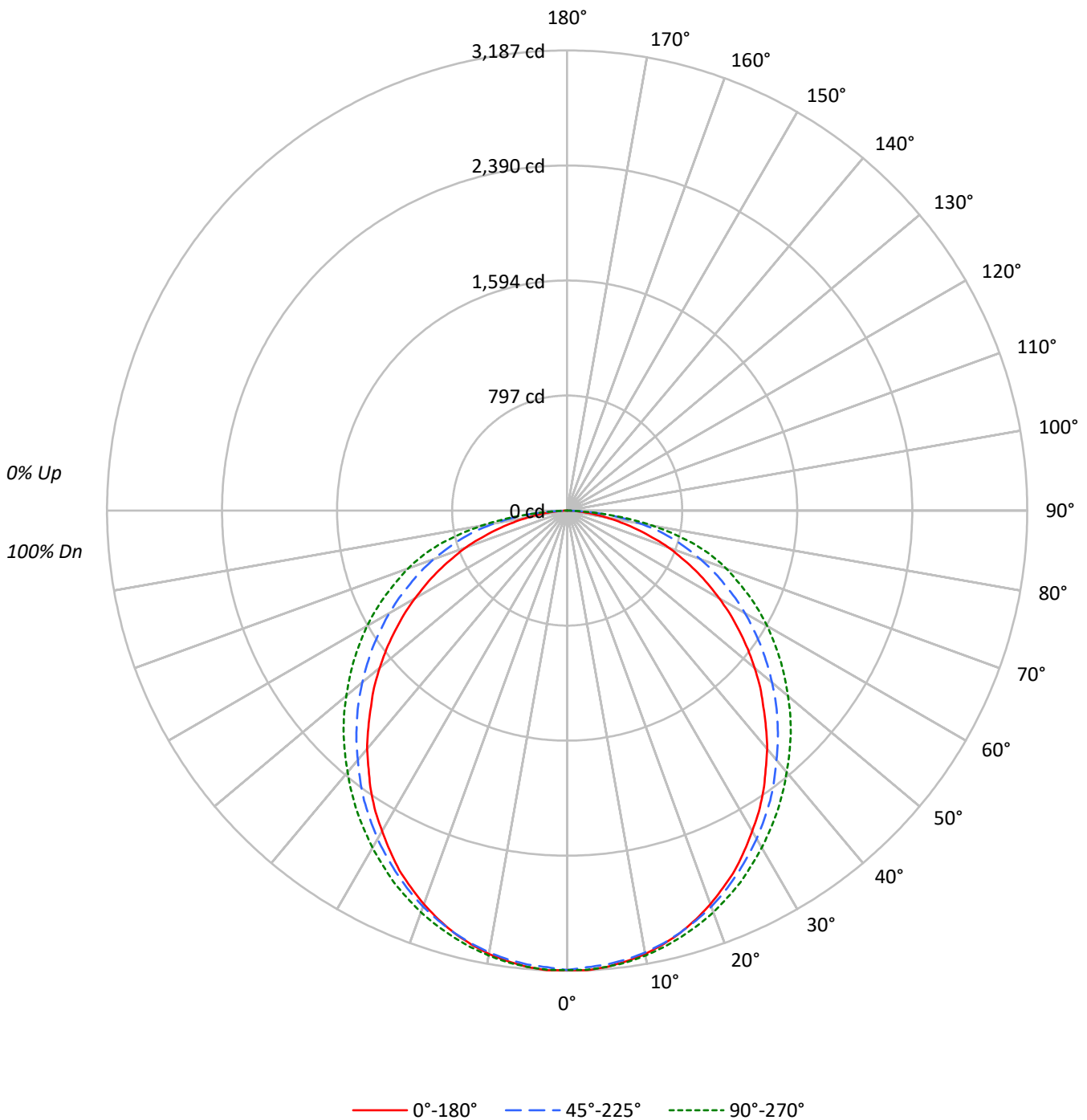
Lumens per Lamp: N/A
Luminaire Lumens: 9208.9 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4282	4282	4282
5°	4284	4262	4284
10°	4260	4246	4275
15°	4217	4215	4257
20°	4154	4179	4239
25°	4082	4128	4218
30°	3982	4080	4188
35°	3893	4027	4171
40°	3786	3961	4155
45°	3657	3921	4167
50°	3547	3877	4179
55°	3417	3849	4226
60°	3275	3831	4304
65°	3121	3818	4415
70°	2938	3857	4618
75°	2583	3937	4803
80°	2156	3966	4634
85°	1539	3399	3446



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	300.8	3.3
10°-20°	856.9	9.3
20°-30°	1285.4	14.0
30°-40°	1534.7	16.7
40°-50°	1589.7	17.3
50°-60°	1463.4	15.9
60°-70°	1180.5	12.8
70°-80°	771.3	8.4
80°-90°	226.1	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°	2443.1	26.5
0°-40°	3977.8	43.2
0°-60°	7030.9	76.3
0°-90°	9208.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9208.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3182	3182	3182	3182	3182	
5°	3172	3169	3156	3173	3172	301
15°	3028	3028	3026	3056	3056	853
25°	2749	2755	2781	2831	2842	1264
35°	2370	2391	2452	2519	2540	1480
45°	1922	1970	2060	2153	2190	1486
55°	1456	1519	1641	1762	1802	1303
65°	980	1047	1199	1336	1387	969
75°	497	591	757	888	924	530
85°	100	173	220	234	223	124
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3182.2	3182.2	3182.2	3182.2	3182.2
2.5°	3186.7	3182.2	3165.9	3185.2	3183.7
5°	3171.8	3168.8	3155.5	3173.3	3171.8
7.5°	3148.0	3146.5	3136.1	3155.5	3155.5
10°	3118.3	3115.3	3107.8	3130.2	3128.7
12.5°	3076.6	3075.1	3070.7	3097.4	3095.9
15°	3027.5	3027.5	3026.0	3055.8	3055.8
17.5°	2968.0	2969.5	2975.4	3009.7	3011.1
20°	2901.1	2907.0	2918.9	2957.6	2960.6
22.5°	2825.2	2837.1	2853.4	2896.6	2901.1
25°	2749.3	2755.3	2780.6	2831.1	2841.5
27.5°	2657.1	2671.9	2704.7	2756.7	2767.2
30°	2563.3	2584.2	2625.8	2679.4	2695.8
32.5°	2471.1	2489.0	2538.1	2599.0	2618.4
35°	2369.9	2390.8	2451.8	2518.7	2539.5
37.5°	2258.4	2291.1	2355.1	2432.4	2454.7
40°	2155.7	2185.5	2255.4	2341.7	2365.5
42.5°	2038.2	2075.4	2160.2	2247.9	2277.7
45°	1922.1	1969.7	2060.5	2152.7	2189.9
47.5°	1813.5	1852.2	1959.3	2063.5	2096.2
50°	1694.5	1739.1	1852.2	1962.3	1996.5
52.5°	1577.0	1630.5	1745.1	1861.1	1898.3
55°	1456.5	1519.0	1641.0	1761.5	1801.6
57.5°	1340.4	1402.9	1529.4	1657.3	1699.0
60°	1217.0	1283.9	1423.7	1547.2	1599.3
62.5°	1097.9	1164.9	1312.2	1446.1	1495.2
65°	980.4	1047.4	1199.1	1336.0	1386.6
67.5°	858.4	931.3	1093.5	1225.9	1275.0
70°	746.8	816.8	980.4	1121.7	1173.8
72.5°	618.9	702.2	868.8	1008.7	1057.8
75°	496.9	590.6	757.3	888.2	923.9
77.5°	383.8	477.6	644.2	742.4	764.7
80°	278.2	373.4	511.8	580.2	598.1
82.5°	180.0	278.2	370.4	416.6	422.5
85°	99.7	172.6	220.2	233.6	223.2
87.5°	35.7	65.5	64.0	52.1	41.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)