

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: P474253

Luminaire Tested: **24CZ2-145VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474253
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-145VHE-RDP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9720.5 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

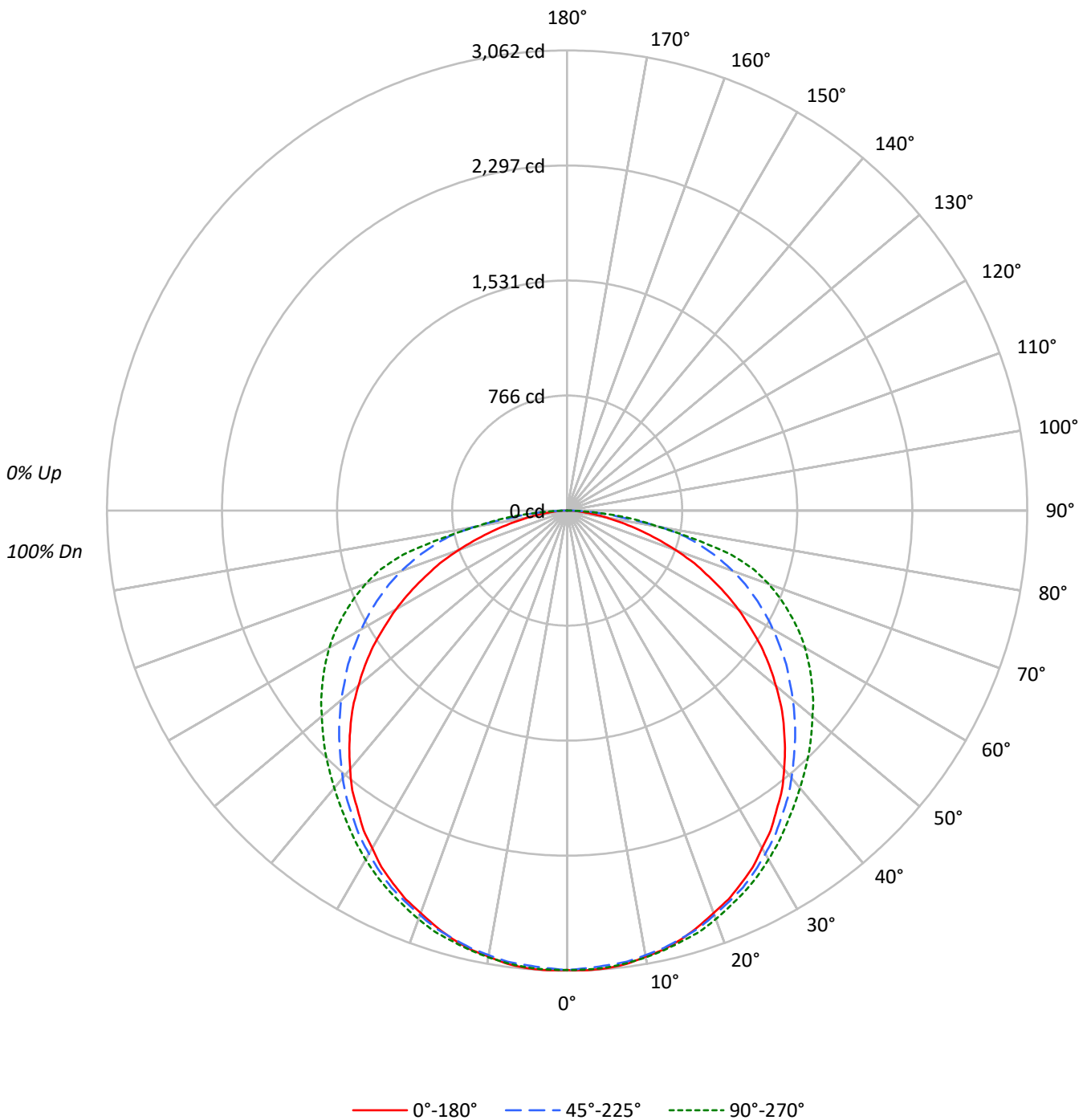
Input Watts (W): 105.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4113	4113	4113
5°	4129	4103	4122
10°	4117	4104	4124
15°	4110	4104	4131
20°	4080	4101	4142
25°	4066	4109	4152
30°	4030	4097	4165
35°	3991	4086	4181
40°	3947	4081	4234
45°	3881	4083	4330
50°	3795	4108	4461
55°	3698	4173	4660
60°	3543	4255	4917
65°	3316	4405	5219
70°	3015	4609	5613
75°	2556	4863	5866
80°	2018	4893	4744
85°	1490	3724	4170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.0	3.0
10°-20°	834.5	8.6
20°-30°	1276.2	13.1
30°-40°	1560.0	16.0
40°-50°	1662.8	17.1
50°-60°	1589.8	16.4
60°-70°	1346.7	13.9
70°-80°	905.1	9.3
80°-90°	255.4	2.6
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°	2400.7	24.7
0°-40°	3960.7	40.7
0°-60°	7213.3	74.2
0°-90°	9720.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9720.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3057	3057	3057	3057	3057	
5°	3057	3052	3038	3052	3052	290
15°	2951	2951	2946	2970	2965	832
25°	2739	2748	2768	2792	2796	1262
35°	2430	2449	2488	2536	2546	1522
45°	2040	2073	2146	2237	2276	1573
55°	1576	1634	1779	1919	1986	1404
65°	1042	1148	1384	1567	1639	1034
75°	492	670	935	1095	1128	527
85°	96	198	241	260	270	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3057.0	3057.0	3057.0	3057.0	3057.0
2.5°	3061.8	3061.8	3047.3	3057.0	3057.0
5°	3057.0	3052.1	3037.7	3052.1	3052.1
7.5°	3042.5	3037.7	3028.0	3042.5	3037.7
10°	3013.6	3013.6	3003.9	3018.4	3018.4
12.5°	2989.4	2984.6	2979.8	2999.1	2994.3
15°	2950.8	2950.8	2946.0	2970.1	2965.3
17.5°	2902.6	2907.4	2912.2	2931.5	2936.4
20°	2849.5	2859.2	2864.0	2893.0	2893.0
22.5°	2801.3	2806.1	2815.8	2844.7	2844.7
25°	2738.6	2748.2	2767.5	2791.6	2796.5
27.5°	2675.9	2680.7	2704.8	2738.6	2743.4
30°	2593.9	2608.3	2637.3	2675.9	2680.7
32.5°	2521.5	2536.0	2569.7	2608.3	2618.0
35°	2429.8	2449.1	2487.7	2536.0	2545.6
37.5°	2347.8	2362.3	2410.6	2463.6	2478.1
40°	2247.0	2275.5	2323.7	2386.4	2410.6
42.5°	2145.7	2174.7	2232.5	2314.1	2343.0
45°	2039.6	2073.4	2145.7	2237.4	2275.5
47.5°	1933.5	1972.1	2054.1	2160.2	2203.6
50°	1812.9	1861.1	1962.4	2083.0	2131.2
52.5°	1697.1	1755.0	1865.9	2001.0	2063.7
55°	1576.5	1634.4	1779.1	1919.0	1986.5
57.5°	1441.4	1518.6	1677.8	1837.0	1909.3
60°	1316.5	1388.3	1581.3	1755.0	1827.3
62.5°	1181.4	1277.9	1484.8	1668.1	1740.5
65°	1041.5	1147.6	1383.5	1566.8	1639.2
67.5°	916.1	1031.9	1282.7	1465.5	1537.9
70°	766.5	911.3	1171.7	1354.6	1426.9
72.5°	626.6	785.8	1056.0	1234.5	1302.0
75°	491.6	670.1	935.4	1094.6	1128.3
77.5°	366.6	554.3	809.9	877.5	853.4
80°	260.5	443.8	631.5	597.7	612.2
82.5°	168.8	337.7	390.7	443.8	457.8
85°	96.5	197.8	241.2	260.5	270.1
87.5°	43.4	72.4	96.5	96.5	91.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)