

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: P474203

Luminaire Tested: **24CZ2-145VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474203
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-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9380.3 lumens
Efficiency: N/A
Efficacy: 89.1 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

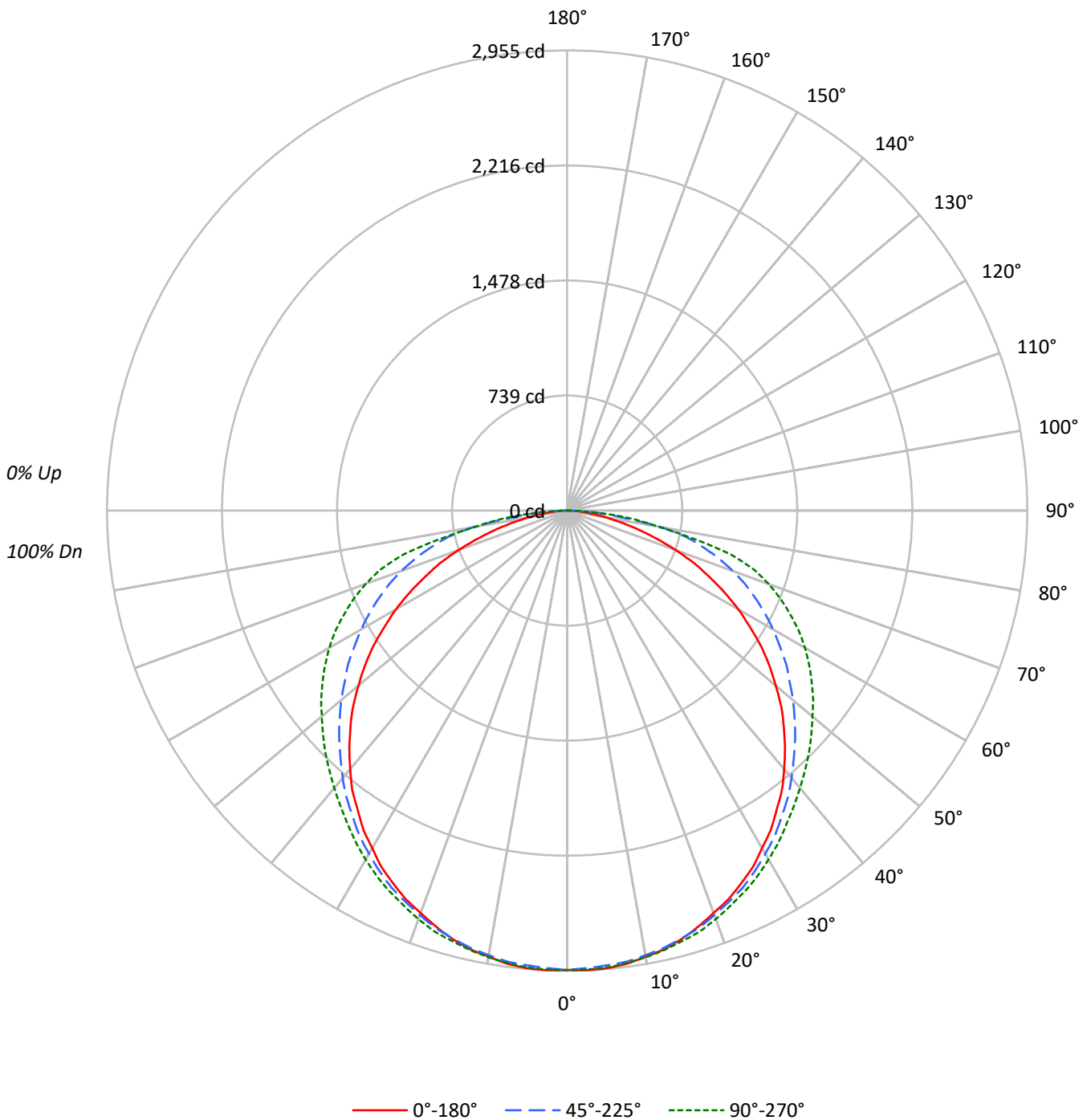
Input Watts (W): 105.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3969	3969	3969
5°	3984	3959	3978
10°	3973	3960	3979
15°	3967	3960	3986
20°	3937	3957	3997
25°	3923	3965	4006
30°	3889	3954	4019
35°	3851	3943	4035
40°	3809	3939	4086
45°	3745	3940	4178
50°	3662	3964	4305
55°	3569	4027	4497
60°	3419	4106	4745
65°	3200	4251	5036
70°	2910	4448	5417
75°	2466	4692	5660
80°	1948	4722	4577
85°	1437	3594	4025



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.8	3.0
10°-20°	805.3	8.6
20°-30°	1231.5	13.1
30°-40°	1505.4	16.0
40°-50°	1604.6	17.1
50°-60°	1534.1	16.4
60°-70°	1299.6	13.9
70°-80°	873.4	9.3
80°-90°	246.5	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°	2316.7	24.7
0°-40°	3822.1	40.7
0°-60°	6960.8	74.2
0°-90°	9380.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9380.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2950	2950	2950	2950	2950	
5°	2950	2945	2931	2945	2945	280
15°	2848	2848	2843	2866	2862	803
25°	2643	2652	2671	2694	2699	1218
35°	2345	2363	2401	2447	2456	1469
45°	1968	2001	2071	2159	2196	1518
55°	1521	1577	1717	1852	1917	1355
65°	1005	1108	1335	1512	1582	998
75°	474	647	903	1056	1089	508
85°	93	191	233	251	261	115
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2950.0	2950.0	2950.0	2950.0	2950.0
2.5°	2954.6	2954.6	2940.7	2950.0	2950.0
5°	2950.0	2945.3	2931.4	2945.3	2945.3
7.5°	2936.0	2931.4	2922.0	2936.0	2931.4
10°	2908.1	2908.1	2898.8	2912.7	2912.7
12.5°	2884.8	2880.1	2875.5	2894.1	2889.5
15°	2847.6	2847.6	2842.9	2866.2	2861.5
17.5°	2801.0	2805.7	2810.3	2828.9	2833.6
20°	2749.8	2759.1	2763.8	2791.7	2791.7
22.5°	2703.3	2707.9	2717.2	2745.1	2745.1
25°	2642.7	2652.0	2670.7	2693.9	2698.6
27.5°	2582.2	2586.9	2610.1	2642.7	2647.4
30°	2503.1	2517.0	2545.0	2582.2	2586.9
32.5°	2433.3	2447.2	2479.8	2517.0	2526.4
35°	2344.8	2363.4	2400.7	2447.2	2456.5
37.5°	2265.7	2279.6	2326.2	2377.4	2391.4
40°	2168.4	2195.8	2242.4	2302.9	2326.2
42.5°	2070.6	2098.5	2154.4	2233.1	2261.0
45°	1968.2	2000.8	2070.6	2159.1	2195.8
47.5°	1865.8	1903.0	1982.2	2084.6	2126.5
50°	1749.4	1796.0	1893.7	2010.1	2056.6
52.5°	1637.7	1693.5	1800.6	1931.0	1991.5
55°	1521.3	1577.2	1716.8	1851.8	1917.0
57.5°	1391.0	1465.4	1619.1	1772.7	1842.5
60°	1270.4	1339.8	1526.0	1693.5	1763.4
62.5°	1140.0	1233.2	1432.9	1609.8	1679.6
65°	1005.0	1107.5	1335.1	1512.0	1581.8
67.5°	884.0	995.7	1237.8	1414.2	1484.1
70°	739.7	879.4	1130.7	1307.2	1377.0
72.5°	604.7	758.3	1019.0	1191.3	1256.4
75°	474.4	646.6	902.6	1056.3	1088.8
77.5°	353.8	534.9	781.6	846.8	823.5
80°	251.4	428.3	609.4	576.8	590.7
82.5°	162.9	325.9	377.1	428.3	441.8
85°	93.1	190.9	232.8	251.4	260.7
87.5°	41.9	69.8	93.1	93.1	88.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)