

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: P474252

Luminaire Tested: **24CZ2-140VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474252
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-140VHE-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: 9404.9 lumens
Efficiency: N/A
Efficacy: 93.6 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

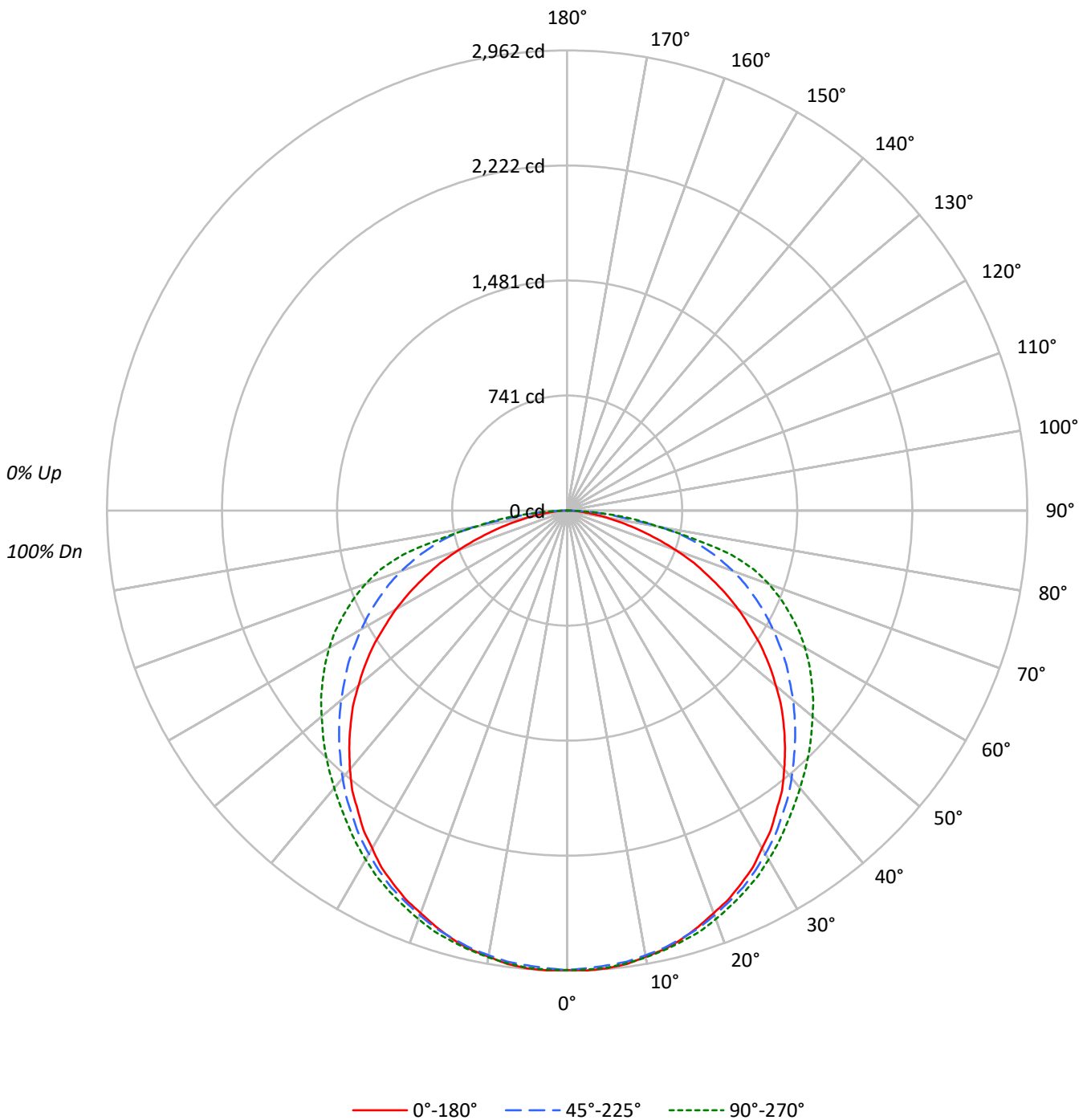
Input Watts (W): 100.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3980	3980	3980
5°	3995	3970	3989
10°	3984	3971	3990
15°	3977	3970	3996
20°	3948	3968	4008
25°	3934	3975	4017
30°	3899	3964	4030
35°	3862	3954	4046
40°	3819	3949	4096
45°	3755	3950	4189
50°	3671	3974	4316
55°	3578	4038	4509
60°	3427	4117	4758
65°	3208	4262	5049
70°	2917	4460	5431
75°	2472	4705	5675
80°	1953	4734	4589
85°	1440	3603	4035



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	280.6	3.0
10°-20°	807.5	8.6
20°-30°	1234.7	13.1
30°-40°	1509.4	16.0
40°-50°	1608.8	17.1
50°-60°	1538.2	16.4
60°-70°	1303.0	13.9
70°-80°	875.7	9.3
80°-90°	247.1	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°	2322.8	24.7
0°-40°	3832.1	40.7
0°-60°	6979.1	74.2
0°-90°	9404.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9404.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2958	2953	2939	2953	2953	281
15°	2855	2855	2850	2874	2869	805
25°	2650	2659	2678	2701	2706	1221
35°	2351	2370	2407	2454	2463	1473
45°	1973	2006	2076	2165	2202	1522
55°	1525	1581	1721	1857	1922	1359
65°	1008	1110	1339	1516	1586	1000
75°	476	648	905	1059	1092	509
85°	93	191	233	252	261	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2957.7	2957.7	2957.7	2957.7	2957.7
2.5°	2962.4	2962.4	2948.4	2957.7	2957.7
5°	2957.7	2953.1	2939.1	2953.1	2953.1
7.5°	2943.7	2939.1	2929.7	2943.7	2939.1
10°	2915.7	2915.7	2906.4	2920.4	2920.4
12.5°	2892.4	2887.7	2883.0	2901.7	2897.0
15°	2855.0	2855.0	2850.4	2873.7	2869.0
17.5°	2808.4	2813.0	2817.7	2836.4	2841.0
20°	2757.0	2766.4	2771.0	2799.0	2799.0
22.5°	2710.4	2715.0	2724.4	2752.4	2752.4
25°	2649.7	2659.0	2677.7	2701.0	2705.7
27.5°	2589.0	2593.7	2617.0	2649.7	2654.3
30°	2509.7	2523.7	2551.7	2589.0	2593.7
32.5°	2439.6	2453.6	2486.3	2523.7	2533.0
35°	2351.0	2369.6	2407.0	2453.6	2463.0
37.5°	2271.6	2285.6	2332.3	2383.6	2397.6
40°	2174.1	2201.6	2248.3	2309.0	2332.3
42.5°	2076.1	2104.1	2160.1	2238.9	2267.0
45°	1973.4	2006.0	2076.1	2164.7	2201.6
47.5°	1870.7	1908.0	1987.4	2090.1	2132.1
50°	1754.0	1800.7	1898.7	2015.4	2062.1
52.5°	1642.0	1698.0	1805.3	1936.0	1996.7
55°	1525.3	1581.3	1721.3	1856.7	1922.0
57.5°	1394.6	1469.3	1623.3	1777.3	1847.4
60°	1273.7	1343.3	1530.0	1698.0	1768.0
62.5°	1143.0	1236.4	1436.6	1614.0	1684.0
65°	1007.7	1110.4	1338.6	1516.0	1586.0
67.5°	886.3	998.4	1241.1	1418.0	1488.0
70°	741.6	881.7	1133.7	1310.6	1380.6
72.5°	606.3	760.3	1021.7	1194.4	1259.7
75°	475.6	648.3	905.0	1059.0	1091.7
77.5°	354.7	536.3	783.7	849.0	825.7
80°	252.0	429.4	611.0	578.3	592.3
82.5°	163.4	326.7	378.1	429.4	442.9
85°	93.3	191.4	233.4	252.0	261.4
87.5°	42.0	70.0	93.3	93.3	88.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)