

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: P474302

Luminaire Tested: **24CZ2-140VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474302
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9583.6 lumens
Efficiency: N/A
Efficacy: 95.4 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

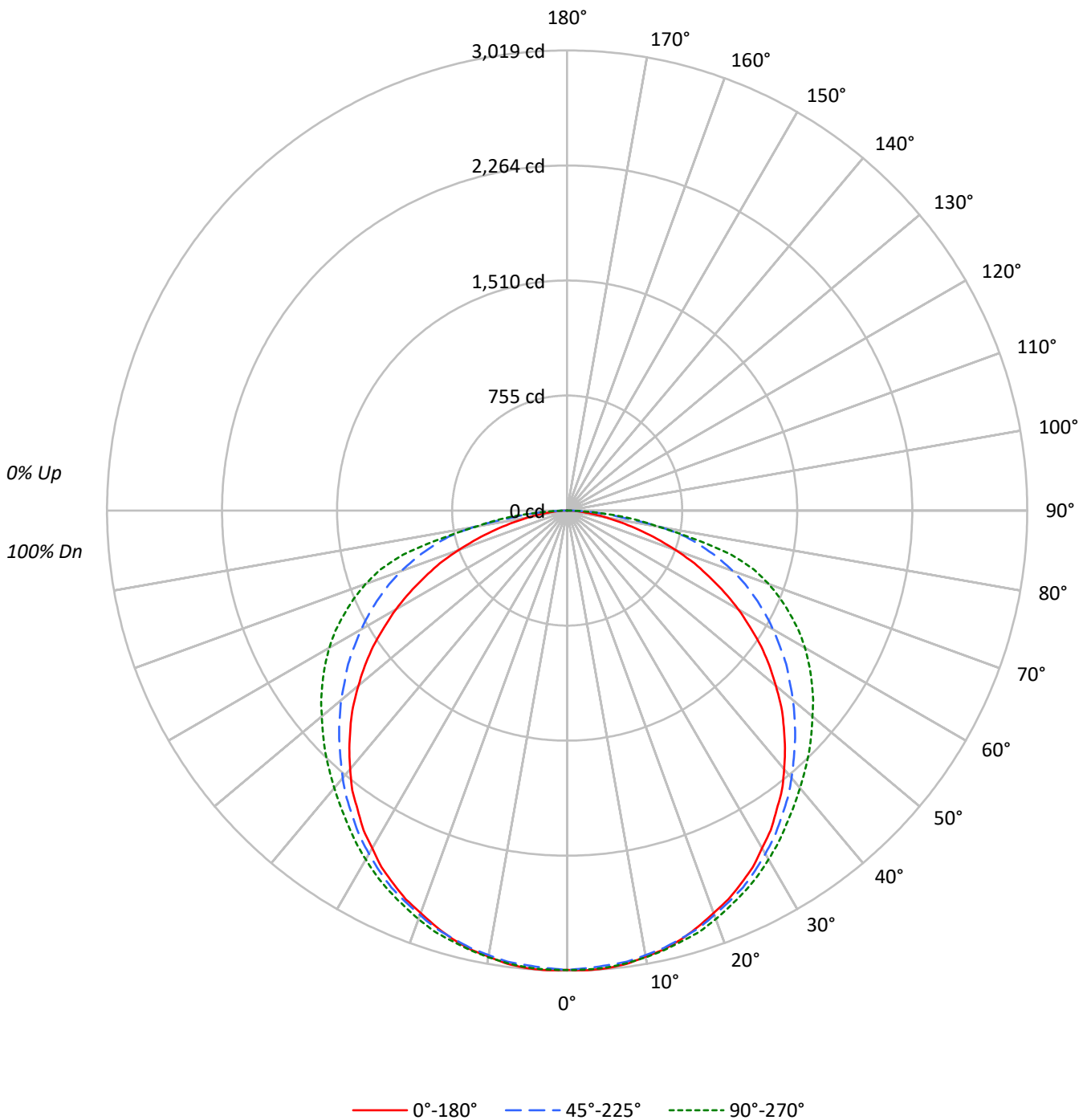
Input Watts (W): 100.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4055	4055	4055
5°	4071	4045	4064
10°	4059	4046	4066
15°	4053	4046	4072
20°	4023	4043	4084
25°	4008	4051	4093
30°	3973	4040	4106
35°	3935	4029	4122
40°	3891	4024	4174
45°	3826	4025	4269
50°	3741	4050	4398
55°	3646	4115	4594
60°	3493	4195	4848
65°	3269	4343	5145
70°	2973	4544	5534
75°	2519	4794	5783
80°	1990	4824	4676
85°	1468	3671	4111



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.9	3.0
10°-20°	822.8	8.6
20°-30°	1258.2	13.1
30°-40°	1538.0	16.0
40°-50°	1639.4	17.1
50°-60°	1567.4	16.4
60°-70°	1327.7	13.9
70°-80°	892.4	9.3
80°-90°	251.8	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°	2366.9	24.7
0°-40°	3904.9	40.7
0°-60°	7111.7	74.2
0°-90°	9583.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9583.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3014	3014	3014	3014	3014	
5°	3014	3009	2995	3009	3009	286
15°	2909	2909	2904	2928	2924	820
25°	2700	2710	2729	2752	2757	1244
35°	2396	2415	2453	2500	2510	1501
45°	2011	2044	2116	2206	2243	1551
55°	1554	1611	1754	1892	1958	1384
65°	1027	1132	1364	1545	1616	1019
75°	485	661	922	1079	1112	519
85°	95	195	238	257	266	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3013.9	3013.9	3013.9	3013.9	3013.9
2.5°	3018.7	3018.7	3004.4	3013.9	3013.9
5°	3013.9	3009.2	2994.9	3009.2	3009.2
7.5°	2999.7	2994.9	2985.4	2999.7	2994.9
10°	2971.1	2971.1	2961.6	2975.9	2975.9
12.5°	2947.3	2942.6	2937.8	2956.8	2952.1
15°	2909.3	2909.3	2904.5	2928.3	2923.6
17.5°	2861.7	2866.5	2871.2	2890.3	2895.0
20°	2809.4	2818.9	2823.7	2852.2	2852.2
22.5°	2761.8	2766.6	2776.1	2804.7	2804.7
25°	2700.0	2709.5	2728.6	2752.3	2757.1
27.5°	2638.2	2642.9	2666.7	2700.0	2704.8
30°	2557.3	2571.6	2600.1	2638.2	2642.9
32.5°	2486.0	2500.3	2533.6	2571.6	2581.1
35°	2395.6	2414.7	2452.7	2500.3	2509.8
37.5°	2314.8	2329.0	2376.6	2428.9	2443.2
40°	2215.4	2243.4	2291.0	2352.8	2376.6
42.5°	2115.5	2144.0	2201.1	2281.5	2310.0
45°	2010.9	2044.2	2115.5	2205.9	2243.4
47.5°	1906.2	1944.3	2025.1	2129.8	2172.6
50°	1787.3	1834.9	1934.8	2053.7	2101.2
52.5°	1673.2	1730.3	1839.6	1972.8	2034.6
55°	1554.3	1611.4	1754.0	1892.0	1958.5
57.5°	1421.1	1497.2	1654.2	1811.1	1882.5
60°	1297.9	1368.8	1559.0	1730.3	1801.6
62.5°	1164.8	1259.9	1463.9	1644.6	1716.0
65°	1026.8	1131.5	1364.0	1544.8	1616.1
67.5°	903.2	1017.3	1264.6	1444.9	1516.2
70°	755.7	898.4	1155.2	1335.5	1406.8
72.5°	617.8	774.8	1041.1	1217.1	1283.7
75°	484.6	660.6	922.2	1079.2	1112.4
77.5°	361.5	546.5	798.5	865.1	841.3
80°	256.8	437.6	622.6	589.3	603.5
82.5°	166.5	332.9	385.2	437.6	451.4
85°	95.1	195.0	237.8	256.8	266.3
87.5°	42.8	71.3	95.1	95.1	90.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)