

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: P474304

Luminaire Tested: **24CZ2-150VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474304
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-150VHE-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: 10260.1 lumens
Efficiency: N/A
Efficacy: 93.5 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

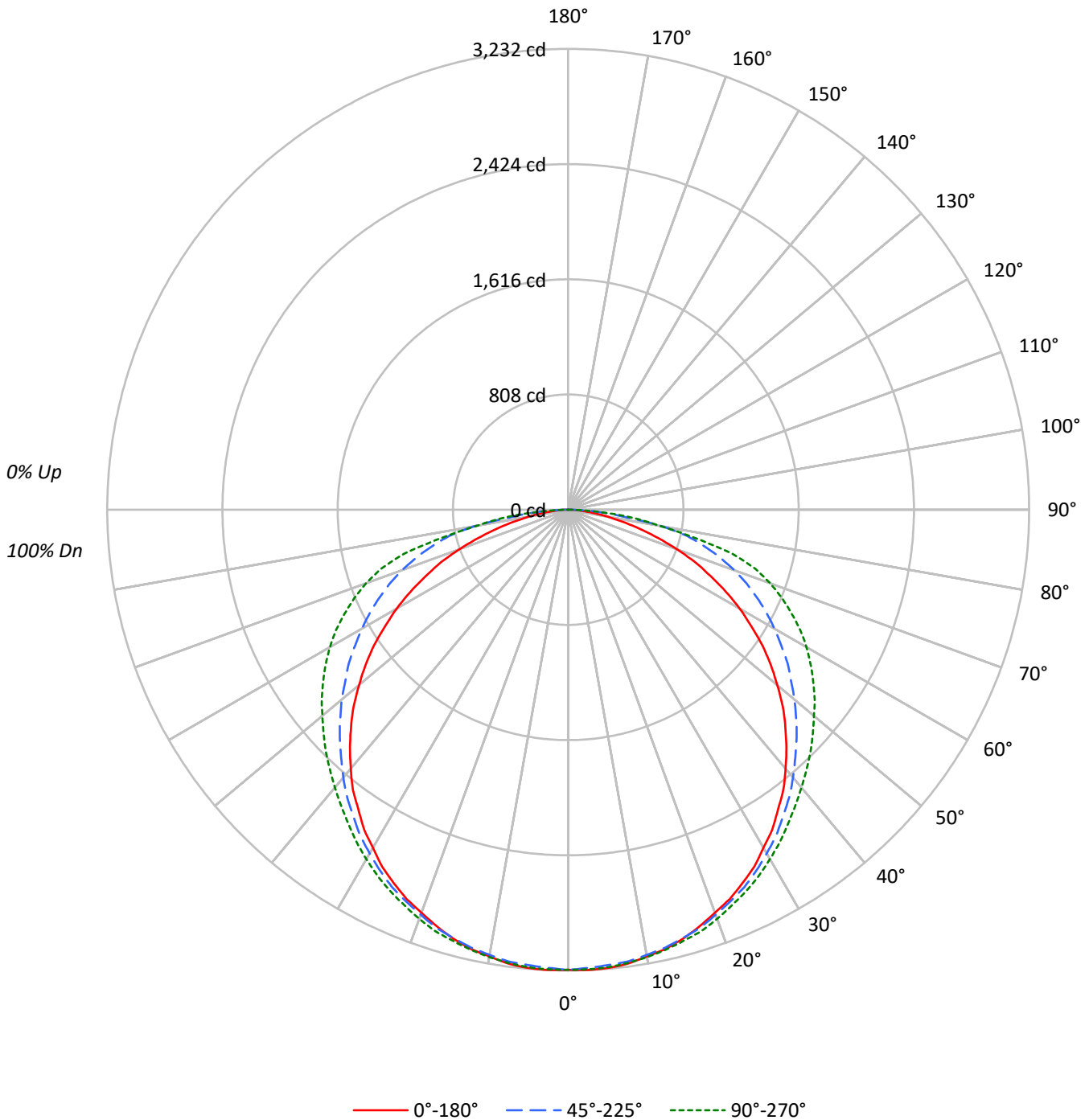
Input Watts (W): 109.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4341	4341	4341
5°	4358	4331	4351
10°	4346	4332	4353
15°	4339	4332	4360
20°	4307	4328	4372
25°	4291	4337	4382
30°	4254	4325	4396
35°	4213	4313	4414
40°	4166	4308	4469
45°	4096	4310	4570
50°	4005	4336	4709
55°	3903	4405	4919
60°	3739	4492	5190
65°	3500	4649	5508
70°	3183	4866	5925
75°	2698	5133	6191
80°	2131	5164	5007
85°	1572	3930	4401



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.1	3.0
10°-20°	880.9	8.6
20°-30°	1347.0	13.1
30°-40°	1646.6	16.0
40°-50°	1755.1	17.1
50°-60°	1678.0	16.4
60°-70°	1421.5	13.9
70°-80°	955.4	9.3
80°-90°	269.6	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°	2534.0	24.7
0°-40°	4180.6	40.7
0°-60°	7613.7	74.2
0°-90°	10260.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10260.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3227	3227	3227	3227	3227	
5°	3227	3222	3206	3222	3222	307
15°	3115	3115	3110	3135	3130	878
25°	2891	2901	2921	2947	2952	1332
35°	2565	2585	2626	2677	2687	1607
45°	2153	2188	2265	2362	2402	1660
55°	1664	1725	1878	2026	2097	1482
65°	1099	1211	1460	1654	1730	1091
75°	519	707	987	1155	1191	556
85°	102	209	255	275	285	126
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3226.7	3226.7	3226.7	3226.7	3226.7
2.5°	3231.8	3231.8	3216.5	3226.7	3226.7
5°	3226.7	3221.6	3206.3	3221.6	3221.6
7.5°	3211.4	3206.3	3196.2	3211.4	3206.3
10°	3180.9	3180.9	3170.7	3186.0	3186.0
12.5°	3155.4	3150.3	3145.2	3165.6	3160.5
15°	3114.7	3114.7	3109.6	3135.0	3130.0
17.5°	3063.8	3068.9	3073.9	3094.3	3099.4
20°	3007.8	3017.9	3023.0	3053.6	3053.6
22.5°	2956.8	2961.9	2972.1	3002.7	3002.7
25°	2890.6	2900.8	2921.2	2946.7	2951.7
27.5°	2824.4	2829.5	2855.0	2890.6	2895.7
30°	2737.9	2753.2	2783.7	2824.4	2829.5
32.5°	2661.5	2676.8	2712.4	2753.2	2763.3
35°	2564.8	2585.1	2625.9	2676.8	2687.0
37.5°	2478.2	2493.5	2544.4	2600.4	2615.7
40°	2371.8	2401.8	2452.7	2518.9	2544.4
42.5°	2264.9	2295.4	2356.5	2442.6	2473.1
45°	2152.8	2188.5	2264.9	2361.6	2401.8
47.5°	2040.8	2081.5	2168.1	2280.1	2326.0
50°	1913.5	1964.4	2071.4	2198.7	2249.6
52.5°	1791.3	1852.4	1969.5	2112.1	2178.3
55°	1664.0	1725.1	1877.9	2025.5	2096.8
57.5°	1521.4	1602.9	1770.9	1939.0	2015.4
60°	1389.6	1465.4	1669.1	1852.4	1928.8
62.5°	1247.0	1348.8	1567.3	1760.8	1837.1
65°	1099.3	1211.3	1460.3	1653.8	1730.2
67.5°	966.9	1089.1	1353.9	1546.9	1623.3
70°	809.1	961.8	1236.8	1429.8	1506.2
72.5°	661.4	829.5	1114.6	1303.0	1374.3
75°	518.9	707.3	987.3	1155.3	1191.0
77.5°	387.0	585.1	854.9	926.2	900.7
80°	275.0	468.4	666.5	630.9	646.2
82.5°	178.2	356.4	412.4	468.4	483.2
85°	101.8	208.8	254.6	275.0	285.1
87.5°	45.8	76.4	101.8	101.8	96.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)