

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: P474201

Luminaire Tested: **24CZ2-135VHE-RDP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474201
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-135VHE-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: 8780.2 lumens
Efficiency: N/A
Efficacy: 90.7 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

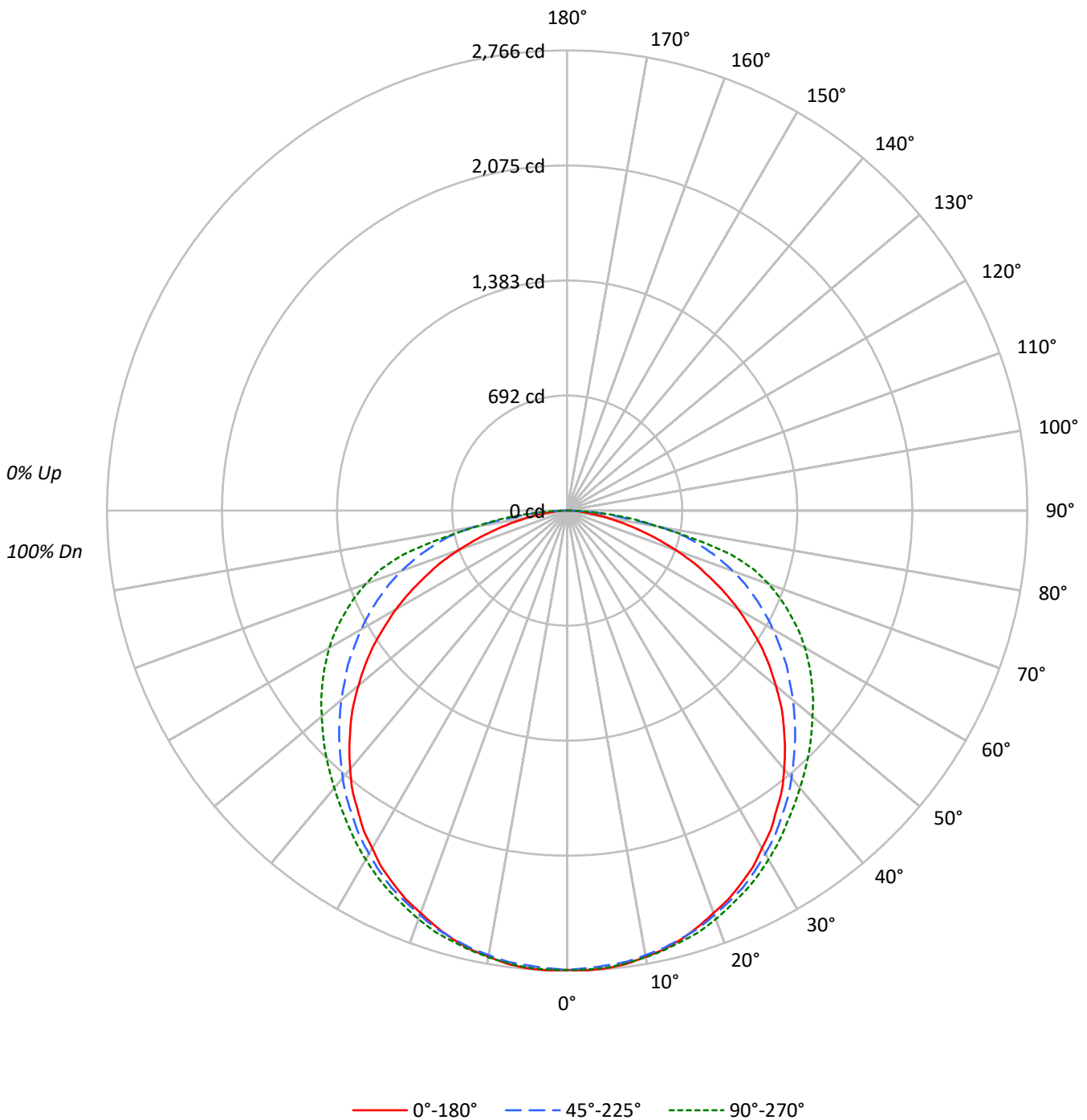
Input Watts (W): 96.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3715	3715	3715
5°	3729	3706	3724
10°	3719	3707	3725
15°	3713	3707	3731
20°	3685	3704	3742
25°	3672	3711	3750
30°	3640	3701	3762
35°	3605	3691	3777
40°	3565	3687	3824
45°	3506	3688	3911
50°	3428	3710	4030
55°	3340	3770	4209
60°	3200	3844	4442
65°	2995	3979	4714
70°	2724	4164	5070
75°	2308	4392	5298
80°	1823	4420	4285
85°	1345	3364	3767



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.9	3.0
10°-20°	753.8	8.6
20°-30°	1152.7	13.1
30°-40°	1409.1	16.0
40°-50°	1501.9	17.1
50°-60°	1436.0	16.4
60°-70°	1216.5	13.9
70°-80°	817.6	9.3
80°-90°	230.7	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°	2168.5	24.7
0°-40°	3577.6	40.7
0°-60°	6515.5	74.2
0°-90°	8780.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8780.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2761	2761	2761	2761	2761	
5°	2761	2757	2744	2757	2757	262
15°	2665	2665	2661	2683	2678	752
25°	2474	2482	2500	2522	2526	1140
35°	2195	2212	2247	2291	2299	1375
45°	1842	1873	1938	2021	2055	1421
55°	1424	1476	1607	1733	1794	1268
65°	941	1037	1250	1415	1481	934
75°	444	605	845	989	1019	476
85°	87	179	218	235	244	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2761.3	2761.3	2761.3	2761.3	2761.3
2.5°	2765.6	2765.6	2752.6	2761.3	2761.3
5°	2761.3	2756.9	2743.9	2756.9	2756.9
7.5°	2748.2	2743.9	2735.1	2748.2	2743.9
10°	2722.1	2722.1	2713.3	2726.4	2726.4
12.5°	2700.3	2695.9	2691.6	2709.0	2704.6
15°	2665.4	2665.4	2661.1	2682.8	2678.5
17.5°	2621.8	2626.2	2630.6	2648.0	2652.3
20°	2573.9	2582.6	2587.0	2613.1	2613.1
22.5°	2530.3	2534.7	2543.4	2569.6	2569.6
25°	2473.7	2482.4	2499.8	2521.6	2526.0
27.5°	2417.0	2421.4	2443.2	2473.7	2478.0
30°	2343.0	2356.0	2382.2	2417.0	2421.4
32.5°	2277.6	2290.7	2321.2	2356.0	2364.8
35°	2194.8	2212.2	2247.1	2290.7	2299.4
37.5°	2120.7	2133.8	2177.4	2225.3	2238.4
40°	2029.7	2055.4	2099.0	2155.6	2177.4
42.5°	1938.2	1964.3	2016.6	2090.2	2116.4
45°	1842.3	1872.8	1938.2	2021.0	2055.4
47.5°	1746.4	1781.3	1855.4	1951.2	1990.5
50°	1637.5	1681.1	1772.6	1881.5	1925.1
52.5°	1532.9	1585.2	1685.4	1807.4	1864.1
55°	1424.0	1476.3	1607.0	1733.4	1794.4
57.5°	1302.0	1371.7	1515.5	1659.3	1724.7
60°	1189.1	1254.1	1428.4	1585.2	1650.6
62.5°	1067.1	1154.3	1341.2	1506.8	1572.1
65°	940.8	1036.6	1249.7	1415.3	1480.6
67.5°	827.5	932.0	1158.6	1323.8	1389.1
70°	692.4	823.1	1058.4	1223.6	1288.9
72.5°	566.0	709.8	953.8	1115.1	1176.1
75°	444.0	605.2	844.9	988.7	1019.2
77.5°	331.2	500.7	731.6	792.6	770.8
80°	235.3	400.9	570.4	539.9	553.0
82.5°	152.5	305.0	352.9	400.9	413.5
85°	87.1	178.7	217.9	235.3	244.0
87.5°	39.2	65.4	87.1	87.1	82.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)