

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: P473882

Luminaire Tested: **24CZ2-30VHE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473882  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30VHE-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3091.6 lumens  
Efficiency: N/A  
Efficacy: 150.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

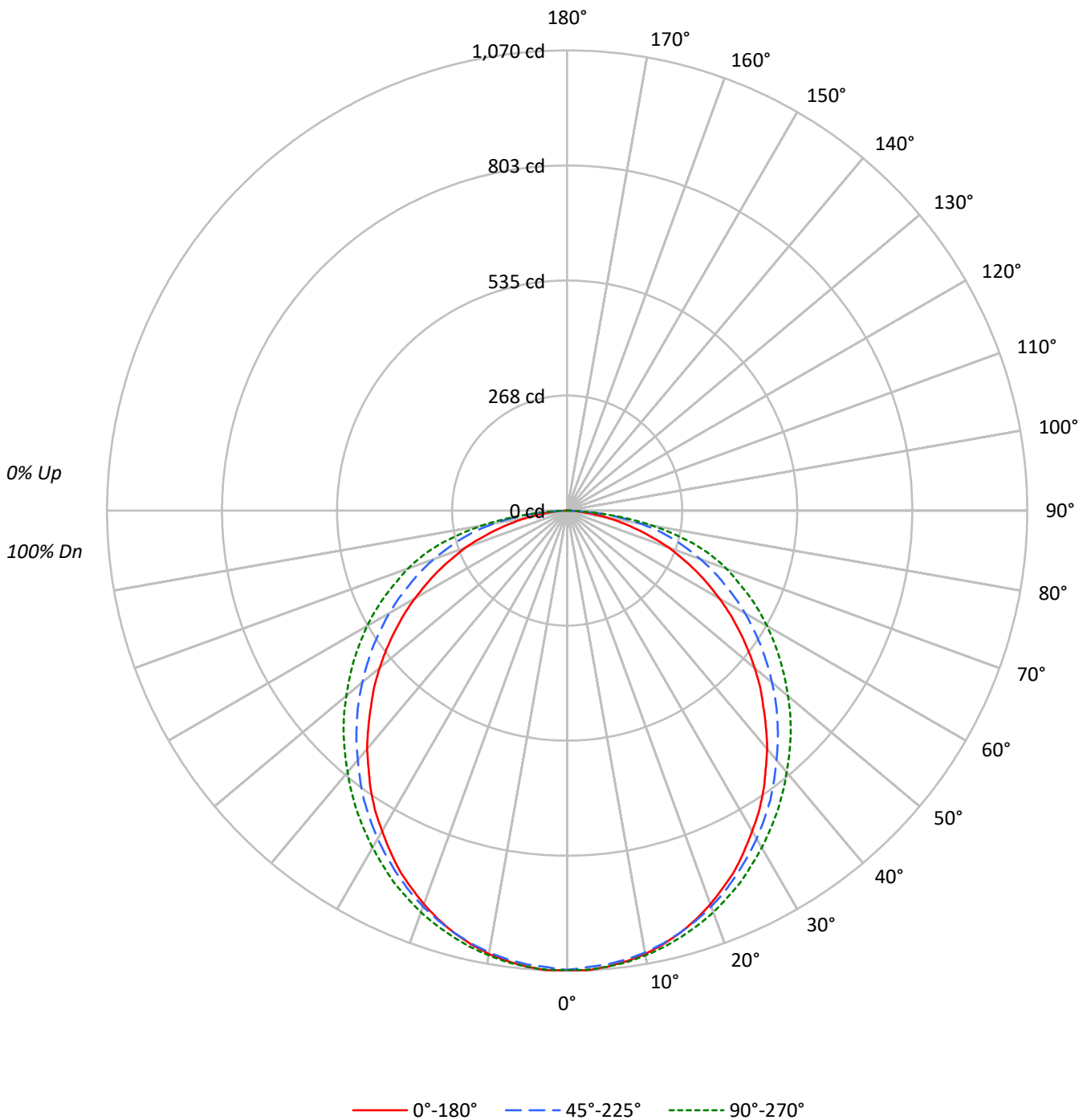
Input Watts (W): 20.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74		81	76	72		78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61		71	65	60		68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52		63	57	51		61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45		56	50	44		55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39		51	44	39		49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35		47	40	35		45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25		36	30	25		36	30	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1437	1437	1437
5°	1438	1431	1438
10°	1430	1426	1435
15°	1416	1415	1429
20°	1394	1403	1423
25°	1370	1386	1416
30°	1337	1370	1406
35°	1307	1352	1400
40°	1271	1330	1395
45°	1228	1316	1399
50°	1191	1302	1403
55°	1147	1292	1419
60°	1100	1286	1445
65°	1048	1282	1482
70°	986	1295	1550
75°	867	1321	1613
80°	724	1331	1556
85°	517	1141	1156



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.0	3.3
10°-20°	287.7	9.3
20°-30°	431.5	14.0
30°-40°	515.2	16.7
40°-50°	533.7	17.3
50°-60°	491.3	15.9
60°-70°	396.3	12.8
70°-80°	258.9	8.4
80°-90°	75.9	2.5
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°	820.2	26.5
0°-40°	1335.4	43.2
0°-60°	2360.4	76.3
0°-90°	3091.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3091.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1068	1068	1068	1068	1068	
5°	1065	1064	1059	1065	1065	101
15°	1016	1016	1016	1026	1026	286
25°	923	925	934	950	954	424
35°	796	803	823	846	853	497
45°	645	661	692	723	735	499
55°	489	510	551	591	605	438
65°	329	352	403	448	466	325
75°	167	198	254	298	310	178
85°	34	58	74	78	75	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1068.3	1068.3	1068.3	1068.3	1068.3
2.5°	1069.8	1068.3	1062.8	1069.3	1068.8
5°	1064.8	1063.8	1059.4	1065.3	1064.8
7.5°	1056.9	1056.4	1052.9	1059.4	1059.4
10°	1046.9	1045.9	1043.4	1050.9	1050.4
12.5°	1032.9	1032.4	1030.9	1039.9	1039.4
15°	1016.4	1016.4	1015.9	1025.9	1025.9
17.5°	996.4	996.9	998.9	1010.4	1010.9
20°	973.9	975.9	979.9	992.9	993.9
22.5°	948.5	952.5	958.0	972.4	973.9
25°	923.0	925.0	933.5	950.5	954.0
27.5°	892.0	897.0	908.0	925.5	929.0
30°	860.6	867.6	881.5	899.5	905.0
32.5°	829.6	835.6	852.1	872.6	879.0
35°	795.6	802.6	823.1	845.6	852.6
37.5°	758.2	769.2	790.6	816.6	824.1
40°	723.7	733.7	757.2	786.1	794.1
42.5°	684.3	696.7	725.2	754.7	764.7
45°	645.3	661.3	691.7	722.7	735.2
47.5°	608.8	621.8	657.8	692.7	703.7
50°	568.9	583.9	621.8	658.8	670.3
52.5°	529.4	547.4	585.9	624.8	637.3
55°	489.0	509.9	550.9	591.4	604.8
57.5°	450.0	471.0	513.4	556.4	570.4
60°	408.6	431.0	478.0	519.4	536.9
62.5°	368.6	391.1	440.5	485.5	502.0
65°	329.1	351.6	402.6	448.5	465.5
67.5°	288.2	312.7	367.1	411.6	428.0
70°	250.7	274.2	329.1	376.6	394.1
72.5°	207.8	235.7	291.7	338.6	355.1
75°	166.8	198.3	254.2	298.2	310.2
77.5°	128.9	160.3	216.3	249.2	256.7
80°	93.4	125.4	171.8	194.8	200.8
82.5°	60.4	93.4	124.4	139.8	141.8
85°	33.5	57.9	73.9	78.4	74.9
87.5°	12.0	22.0	21.5	17.5	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)