

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: P881162

Luminaire Tested: **24CZ2-30VHE-SQR-UNV-B40**

Issue Date: 10/2/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P881162  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P474669)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 10/2/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30VHE-SQR-UNV-B40  
Description: 2X4 3000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

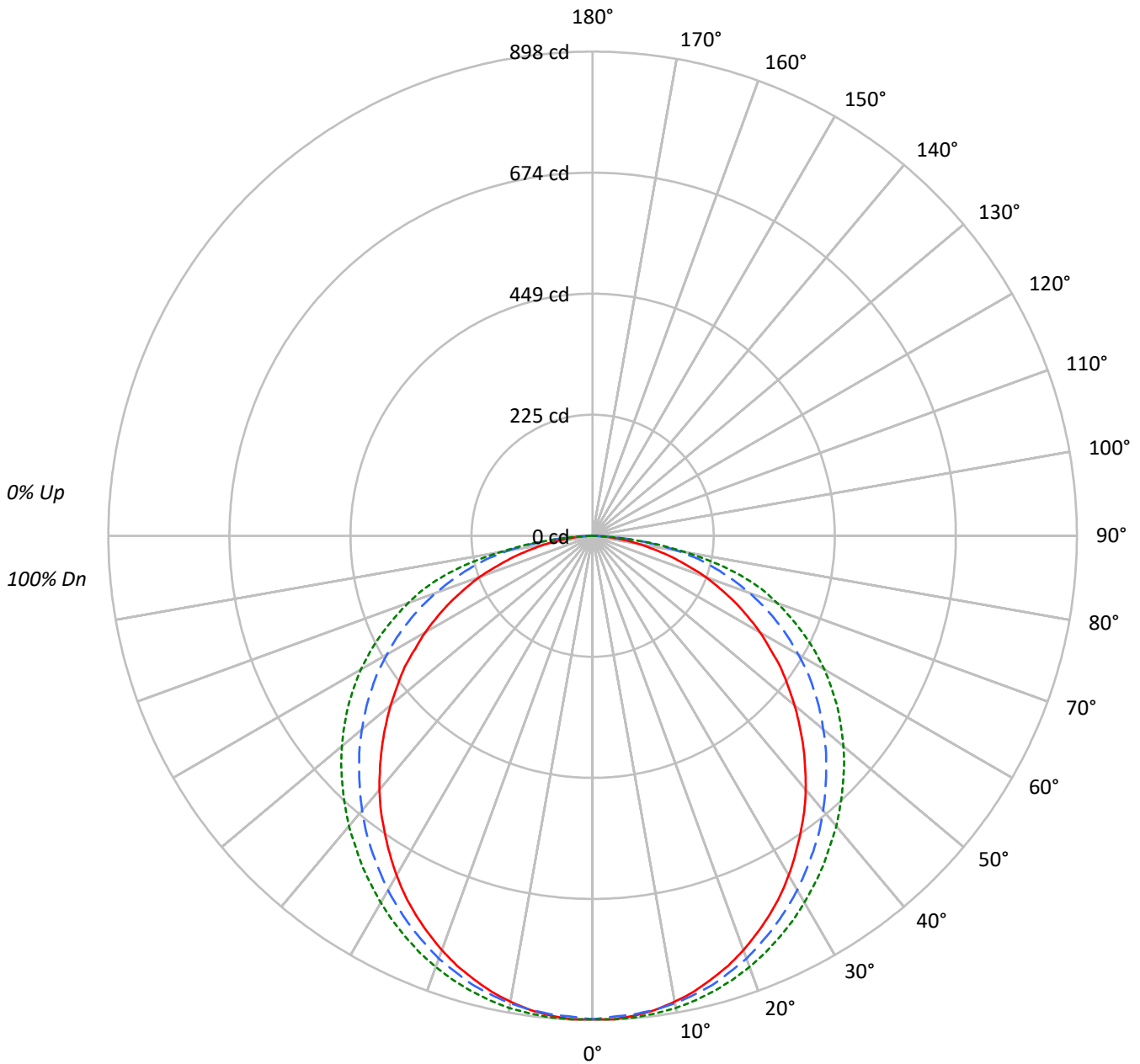
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2730.0 lumens  
Efficiency: N/A  
Efficacy: 118.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 23  
Input Voltage (V): NR  
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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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	101	96	93	96	93	90	92	90	87	89	87	84	82																			
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68																			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56																			
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48																			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41																			
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36																			
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31																			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28																			
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25																			
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23																			

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

	0°	45°	90°
0°	1266	1266	1266
5°	1265	1262	1270
10°	1258	1262	1274
15°	1244	1259	1276
20°	1228	1253	1278
25°	1208	1244	1278
30°	1185	1237	1280
35°	1158	1229	1285
40°	1133	1225	1295
45°	1102	1222	1309
50°	1073	1226	1333
55°	1047	1234	1363
60°	1012	1243	1401
65°	971	1259	1443
70°	921	1276	1501
75°	826	1293	1551
80°	695	1297	1407
85°	515	981	925



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.0	3.1
10°-20°	243.5	8.9
20°-30°	368.7	13.5
30°-40°	446.0	16.3
40°-50°	470.8	17.2
50°-60°	443.9	16.3
60°-70°	366.0	13.4
70°-80°	240.1	8.8
80°-90°	66.0	2.4
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°	697.2	25.5
0°-40°	1143.2	41.9
0°-60°	2057.9	75.4
0°-90°	2730.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2730.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	893	893	891	897	897	85
15°	851	856	862	872	874	240
25°	776	786	799	816	821	357
35°	672	690	714	738	746	421
45°	552	577	612	645	656	426
55°	426	456	502	539	554	379
65°	291	326	377	417	432	287
75°	151	190	237	275	284	160
85°	32	55	61	59	57	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	896.7	896.7	896.7	896.7	896.7
2.5°	897.6	896.7	892.8	898.0	897.6
5°	893.2	893.2	890.6	896.7	896.7
7.5°	887.1	887.6	886.6	893.6	893.6
10°	877.5	879.3	880.5	888.5	889.3
12.5°	866.2	869.3	871.8	881.5	882.4
15°	851.3	856.2	861.8	871.8	873.6
17.5°	836.1	841.8	847.9	861.0	863.2
20°	817.8	824.3	834.3	847.4	850.9
22.5°	797.3	806.4	816.9	832.6	837.0
25°	775.9	785.5	799.0	815.6	820.8
27.5°	752.8	764.1	779.4	798.6	804.2
30°	727.1	740.1	758.9	779.4	785.5
32.5°	700.0	715.3	736.2	758.9	765.8
35°	672.1	689.5	713.5	738.0	745.8
37.5°	644.6	662.0	690.4	716.2	723.5
40°	614.9	634.1	665.1	692.6	703.1
42.5°	583.5	606.3	638.9	669.5	679.5
45°	552.2	577.0	612.4	645.0	656.0
47.5°	520.3	547.8	586.6	619.7	632.4
50°	488.5	517.7	558.3	594.0	607.1
52.5°	456.2	486.8	530.8	568.7	580.5
55°	425.7	455.7	501.6	539.1	553.9
57.5°	390.3	424.4	472.7	510.8	525.1
60°	358.5	391.7	440.5	480.7	496.3
62.5°	324.0	358.0	409.5	449.6	464.9
65°	290.9	325.8	376.9	417.0	432.2
67.5°	255.2	291.8	344.1	383.0	397.8
70°	223.3	257.8	309.2	348.9	363.8
72.5°	184.5	223.8	273.0	312.3	328.4
75°	151.4	190.1	237.2	274.8	284.4
77.5°	116.4	155.3	201.9	226.3	232.9
80°	85.5	122.1	159.6	172.7	173.1
82.5°	57.6	89.9	111.3	117.8	116.9
85°	31.8	54.9	60.6	58.9	57.1
87.5°	13.1	18.3	14.8	10.5	8.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)