

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: P388523

Luminaire Tested: **24CZ2-30VHE-SQR-UNV-L950-CD1-U**

Issue Date: 2/28/2020

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: P388523  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 2/28/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30VHE-SQR-UNV-L950-CD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2621.9 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

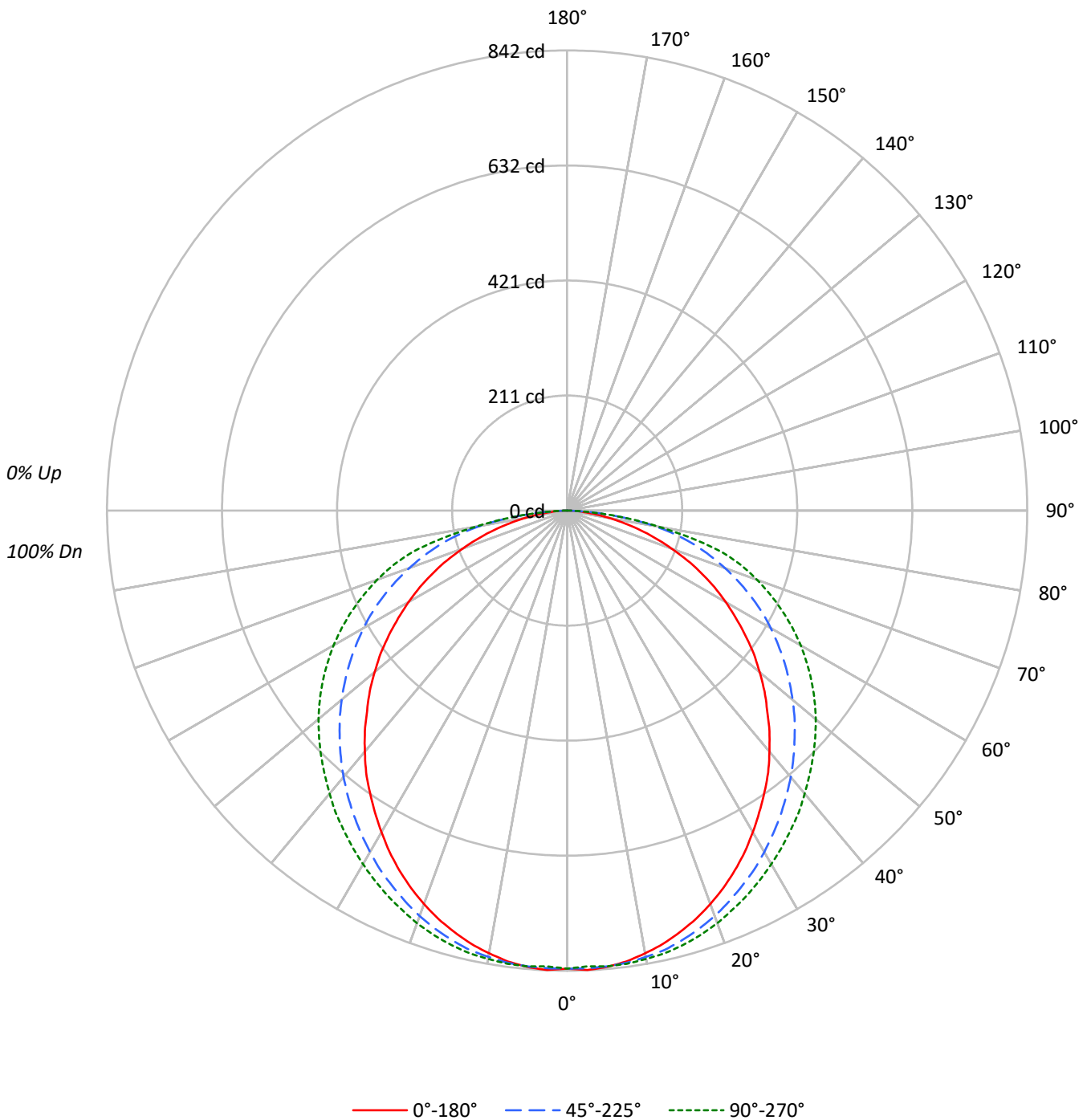
Input Watts (W): 20.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				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		89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51		62	55	50		60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44		55	49	43		54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34		45	39	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		42	35	30		40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27		38	32	27		37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24		36	29	24		35	29	24	22

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

	0°	45°	90°
0°	1128	1128	1128
5°	1132	1131	1131
10°	1124	1133	1138
15°	1112	1134	1146
20°	1097	1131	1150
25°	1078	1125	1154
30°	1056	1120	1161
35°	1034	1118	1172
40°	1011	1118	1188
45°	985	1120	1211
50°	962	1127	1243
55°	934	1139	1282
60°	902	1158	1328
65°	863	1180	1384
70°	801	1209	1454
75°	725	1251	1521
80°	611	1254	1308
85°	468	949	949



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.6	3.0
10°-20°	228.9	8.7
20°-30°	347.7	13.3
30°-40°	422.9	16.1
40°-50°	450.2	17.2
50°-60°	428.8	16.4
60°-70°	358.6	13.7
70°-80°	239.1	9.1
80°-90°	66.2	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°	656.1	25.0
0°-40°	1079.0	41.2
0°-60°	1958.0	74.7
0°-90°	2621.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2621.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	838	838	838	838	838	
5°	838	833	837	837	837	79
15°	798	800	814	820	822	225
25°	726	736	758	771	778	334
35°	629	648	680	703	713	394
45°	518	545	589	622	636	400
55°	398	433	486	528	546	356
65°	271	311	371	416	435	268
75°	139	184	241	281	293	148
85°	30	56	62	61	62	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	838.1	838.1	838.1	838.1	838.1
2.5°	841.5	835.5	838.1	838.1	834.6
5°	838.1	832.9	837.2	837.2	837.2
7.5°	832.0	827.7	834.6	836.4	836.4
10°	822.5	820.8	829.4	832.0	832.9
12.5°	812.1	811.2	823.4	826.8	829.4
15°	798.3	800.0	813.8	819.9	822.5
17.5°	783.5	787.0	802.6	811.2	813.8
20°	766.2	771.4	789.6	798.3	803.5
22.5°	747.2	755.0	774.0	784.4	790.5
25°	726.4	735.9	757.6	770.6	777.5
27.5°	703.9	716.0	741.1	755.8	762.8
30°	679.6	693.5	721.2	738.5	747.2
32.5°	654.5	671.0	701.3	720.3	730.7
35°	629.4	647.6	680.5	703.0	713.4
37.5°	604.3	622.5	658.9	683.1	696.1
40°	575.8	597.4	636.4	663.2	676.2
42.5°	548.0	571.4	613.0	642.4	656.3
45°	517.7	545.4	588.7	621.6	636.4
47.5°	490.0	517.7	564.5	599.1	615.6
50°	459.7	489.2	538.5	576.6	593.9
52.5°	430.3	460.6	512.5	553.2	570.6
55°	398.3	432.9	485.7	528.1	546.3
57.5°	366.2	403.5	458.0	502.2	520.3
60°	335.1	373.2	430.3	474.5	493.5
62.5°	303.9	342.0	401.7	446.7	464.9
65°	271.0	310.8	370.6	416.4	434.6
67.5°	238.1	279.7	339.4	385.3	402.6
70°	203.5	247.6	307.4	352.4	369.7
72.5°	171.4	215.6	274.5	318.6	335.1
75°	139.4	183.5	240.7	281.4	292.6
77.5°	108.2	152.4	203.5	230.3	232.9
80°	78.8	120.3	161.9	169.7	168.8
82.5°	52.8	90.0	111.7	112.6	115.2
85°	30.3	56.3	61.5	60.6	61.5
87.5°	12.1	19.9	17.3	13.0	13.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)