

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: P388474

Luminaire Tested: **24CZ2-30-SQR-UNV-L950-CD1-SWPD1-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: P388474  
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: 24CZ2-30-SQR-UNV-L950-CD1-SWPD1-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: 2607.5 lumens  
Efficiency: N/A  
Efficacy: 107.7 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

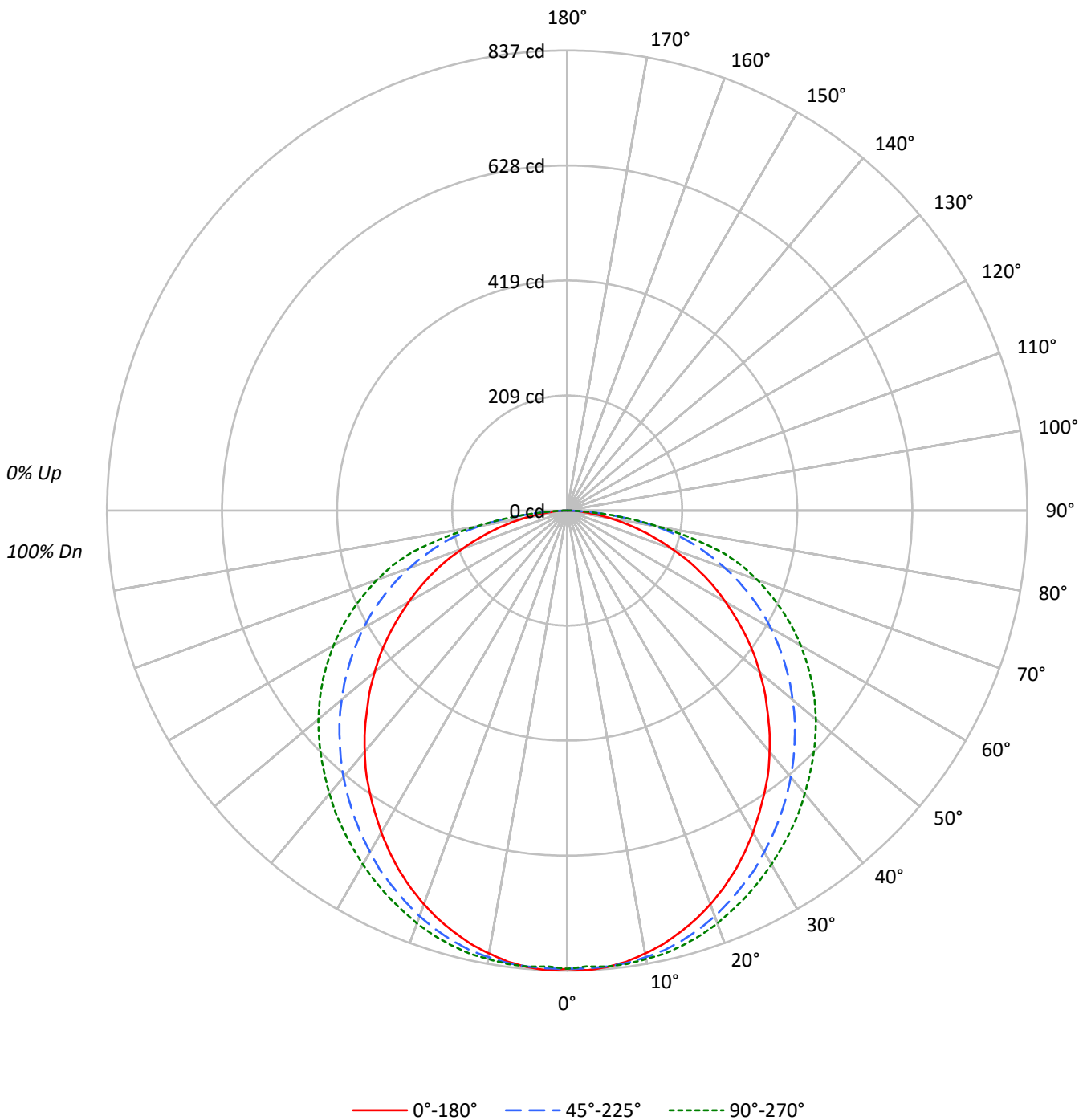
Input Watts (W): 24.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1121	1121	1121
5°	1126	1125	1125
10°	1118	1127	1132
15°	1106	1127	1139
20°	1091	1124	1144
25°	1072	1118	1148
30°	1050	1114	1155
35°	1028	1112	1165
40°	1006	1112	1181
45°	980	1114	1204
50°	957	1121	1236
55°	929	1133	1274
60°	897	1151	1321
65°	858	1173	1376
70°	796	1203	1447
75°	721	1245	1513
80°	607	1247	1301
85°	465	943	943



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.1	3.0
10°-20°	227.6	8.7
20°-30°	345.8	13.3
30°-40°	420.6	16.1
40°-50°	447.8	17.2
50°-60°	426.5	16.4
60°-70°	356.6	13.7
70°-80°	237.8	9.1
80°-90°	65.8	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°	652.5	25.0
0°-40°	1073.1	41.2
0°-60°	1947.3	74.7
0°-90°	2607.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2607.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	834	828	833	833	833	79
15°	794	796	809	815	818	224
25°	722	732	753	766	773	333
35°	626	644	677	699	710	392
45°	515	542	586	618	633	398
55°	396	430	483	525	543	354
65°	270	309	368	414	432	266
75°	139	182	239	280	291	147
85°	30	56	61	60	61	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	833.5	833.5	833.5	833.5	833.5
2.5°	836.9	830.9	833.5	833.5	830.0
5°	833.5	828.3	832.6	832.6	832.6
7.5°	827.5	823.2	830.0	831.8	831.8
10°	818.0	816.3	824.9	827.5	828.3
12.5°	807.7	806.8	818.8	822.3	824.9
15°	793.9	795.6	809.4	815.4	818.0
17.5°	779.2	782.7	798.2	806.8	809.4
20°	762.0	767.2	785.3	793.9	799.0
22.5°	743.1	750.8	769.8	780.1	786.1
25°	722.4	731.9	753.4	766.3	773.2
27.5°	700.0	712.1	737.0	751.7	758.6
30°	675.9	689.7	717.2	734.5	743.1
32.5°	650.9	667.3	697.4	716.4	726.7
35°	626.0	644.1	676.8	699.2	709.5
37.5°	601.0	619.1	655.2	679.4	692.3
40°	572.6	594.1	632.9	659.6	672.5
42.5°	545.0	568.3	609.6	638.9	652.7
45°	514.9	542.5	585.5	618.2	632.9
47.5°	487.3	514.9	561.4	595.8	612.2
50°	457.2	486.5	535.6	573.5	590.7
52.5°	427.9	458.1	509.7	550.2	567.4
55°	396.1	430.5	483.0	525.2	543.3
57.5°	364.2	401.2	455.5	499.4	517.5
60°	333.2	371.1	427.9	471.8	490.8
62.5°	302.2	340.1	399.5	444.3	462.4
65°	269.5	309.1	368.5	414.2	432.2
67.5°	236.8	278.1	337.5	383.2	400.4
70°	202.3	246.3	305.7	350.4	367.7
72.5°	170.5	214.4	272.9	316.9	333.2
75°	138.6	182.5	239.4	279.8	291.0
77.5°	107.6	151.5	202.3	229.0	231.6
80°	78.4	119.7	161.0	168.8	167.9
82.5°	52.5	89.5	111.1	111.9	114.5
85°	30.1	56.0	61.1	60.3	61.1
87.5°	12.1	19.8	17.2	12.9	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)