

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: P388494

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L940-CD1-SDWPD1-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: P388494  
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: 24CZ2-30HE-SQR-UNV-L940-CD1-SDWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2412.5 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

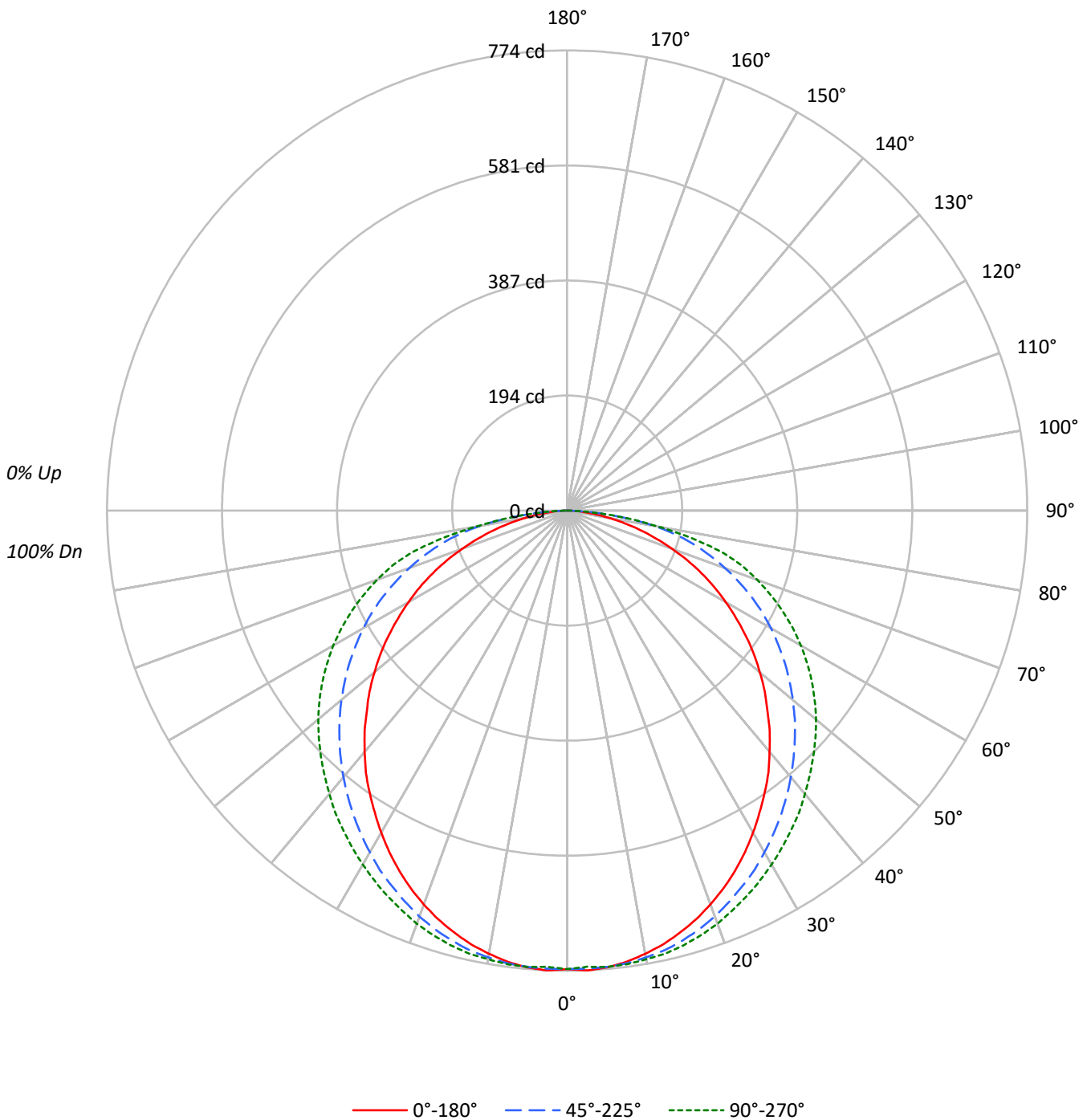
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1038	1038	1038
5°	1042	1041	1041
10°	1034	1043	1047
15°	1023	1043	1054
20°	1009	1040	1059
25°	992	1035	1062
30°	972	1031	1068
35°	951	1029	1078
40°	931	1028	1093
45°	906	1031	1114
50°	885	1037	1144
55°	860	1048	1179
60°	830	1065	1222
65°	794	1086	1273
70°	736	1113	1338
75°	667	1151	1400
80°	562	1155	1203
85°	431	874	874



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	3.0
10°-20°	210.6	8.7
20°-30°	319.9	13.3
30°-40°	389.1	16.1
40°-50°	414.3	17.2
50°-60°	394.6	16.4
60°-70°	330.0	13.7
70°-80°	220.0	9.1
80°-90°	60.9	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°	603.7	25.0
0°-40°	992.8	41.2
0°-60°	1801.7	74.7
0°-90°	2412.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2412.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	771	766	770	770	770	73
15°	734	736	749	754	757	207
25°	668	677	697	709	715	308
35°	579	596	626	647	656	362
45°	476	502	542	572	586	368
55°	366	398	447	486	503	328
65°	249	286	341	383	400	246
75°	128	169	222	259	269	136
85°	28	52	57	56	57	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	771.2	771.2	771.2	771.2	771.2
2.5°	774.3	768.8	771.2	771.2	768.0
5°	771.2	766.4	770.4	770.4	770.4
7.5°	765.6	761.6	768.0	769.6	769.6
10°	756.8	755.2	763.2	765.6	766.4
12.5°	747.3	746.5	757.6	760.8	763.2
15°	734.5	736.1	748.8	754.4	756.8
17.5°	721.0	724.2	738.5	746.5	748.8
20°	705.0	709.8	726.5	734.5	739.3
22.5°	687.5	694.7	712.2	721.8	727.3
25°	668.4	677.1	697.1	709.0	715.4
27.5°	647.7	658.8	681.9	695.5	701.8
30°	625.4	638.1	663.6	679.5	687.5
32.5°	602.3	617.4	645.3	662.8	672.4
35°	579.2	595.9	626.2	646.9	656.4
37.5°	556.1	572.8	606.2	628.6	640.5
40°	529.8	549.7	585.5	610.2	622.2
42.5°	504.3	525.8	564.0	591.1	603.9
45°	476.4	501.9	541.7	572.0	585.5
47.5°	450.9	476.4	519.4	551.3	566.4
50°	423.0	450.1	495.5	530.6	546.5
52.5°	395.9	423.8	471.6	509.1	525.0
55°	366.5	398.3	446.9	486.0	502.7
57.5°	337.0	371.2	421.4	462.1	478.8
60°	308.3	343.4	395.9	436.6	454.1
62.5°	279.6	314.7	369.6	411.1	427.8
65°	249.3	286.0	341.0	383.2	399.9
67.5°	219.1	257.3	312.3	354.5	370.4
70°	187.2	227.8	282.8	324.2	340.2
72.5°	157.7	198.4	252.5	293.2	308.3
75°	128.3	168.9	221.5	258.9	269.3
77.5°	99.6	140.2	187.2	211.9	214.3
80°	72.5	110.7	149.0	156.1	155.3
82.5°	48.6	82.9	102.8	103.6	106.0
85°	27.9	51.8	56.6	55.8	56.6
87.5°	11.2	18.3	15.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)