

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: P388471

Luminaire Tested: **24CZ2-30-SQR-UNV-L940-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: P388471
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-L940-CD1-SWPD1-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: 2456.5 lumens
Efficiency: N/A
Efficacy: 101.5 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

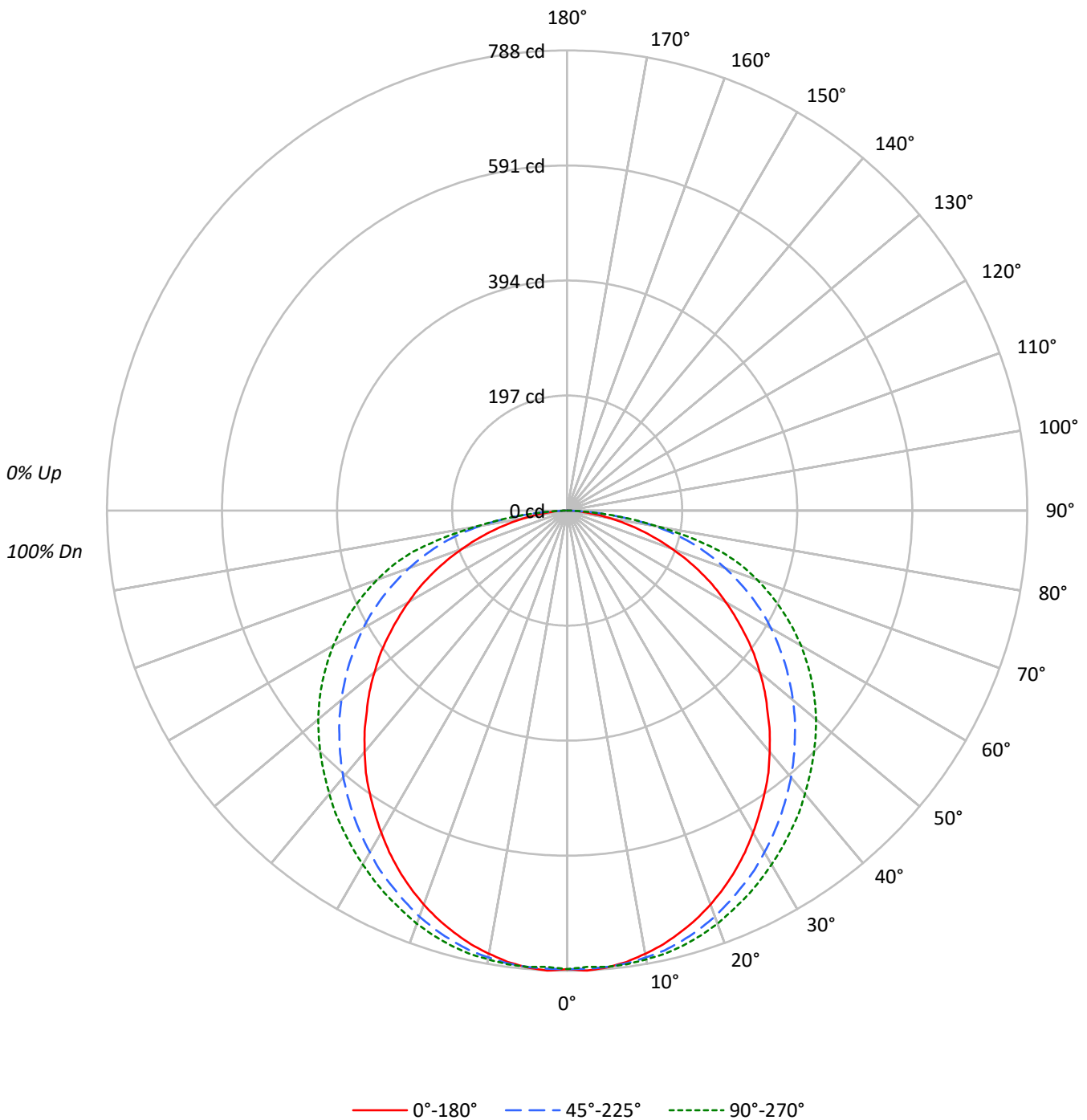
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1056	1056	1056
5°	1061	1059	1059
10°	1053	1062	1066
15°	1042	1062	1073
20°	1028	1059	1078
25°	1010	1054	1081
30°	989	1050	1088
35°	969	1047	1098
40°	947	1047	1113
45°	923	1050	1134
50°	902	1056	1165
55°	875	1068	1201
60°	845	1085	1244
65°	808	1105	1296
70°	750	1133	1363
75°	679	1172	1425
80°	572	1175	1226
85°	438	889	889



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.0
10°-20°	214.4	8.7
20°-30°	325.7	13.3
30°-40°	396.2	16.1
40°-50°	421.8	17.2
50°-60°	401.8	16.4
60°-70°	336.0	13.7
70°-80°	224.0	9.1
80°-90°	62.0	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°	614.7	25.0
0°-40°	1010.9	41.2
0°-60°	1834.5	74.7
0°-90°	2456.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2456.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	785	780	784	784	784	74
15°	748	750	762	768	771	211
25°	681	690	710	722	728	313
35°	590	607	638	659	668	369
45°	485	511	552	582	596	375
55°	373	406	455	495	512	334
65°	254	291	347	390	407	251
75°	131	172	226	264	274	138
85°	28	53	58	57	58	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	785.2	785.2	785.2	785.2	785.2
2.5°	788.5	782.8	785.2	785.2	782.0
5°	785.2	780.3	784.4	784.4	784.4
7.5°	779.5	775.5	782.0	783.6	783.6
10°	770.6	769.0	777.1	779.5	780.3
12.5°	760.9	760.1	771.4	774.7	777.1
15°	747.9	749.5	762.5	768.2	770.6
17.5°	734.1	737.4	752.0	760.1	762.5
20°	717.9	722.8	739.8	747.9	752.8
22.5°	700.0	707.3	725.2	734.9	740.6
25°	680.6	689.5	709.8	721.9	728.4
27.5°	659.5	670.8	694.4	708.2	714.6
30°	636.8	649.8	675.7	691.9	700.0
32.5°	613.2	628.7	657.1	674.9	684.6
35°	589.7	606.8	637.6	658.7	668.4
37.5°	566.2	583.2	617.3	640.0	652.2
40°	539.4	559.7	596.2	621.4	633.5
42.5°	513.5	535.4	574.3	601.9	614.9
45°	485.1	511.0	551.6	582.4	596.2
47.5°	459.1	485.1	528.9	561.3	576.7
50°	430.7	458.3	504.6	540.2	556.5
52.5°	403.2	431.5	480.2	518.3	534.6
55°	373.1	405.6	455.1	494.8	511.9
57.5°	343.1	378.0	429.1	470.5	487.5
60°	313.9	349.6	403.2	444.5	462.4
62.5°	284.7	320.4	376.4	418.6	435.6
65°	253.9	291.2	347.2	390.2	407.2
67.5°	223.1	262.0	318.0	361.0	377.2
70°	190.6	232.0	288.0	330.1	346.4
72.5°	160.6	202.0	257.1	298.5	313.9
75°	130.6	172.0	225.5	263.6	274.2
77.5°	101.4	142.8	190.6	215.8	218.2
80°	73.8	112.8	151.7	159.0	158.2
82.5°	49.5	84.4	104.6	105.5	107.9
85°	28.4	52.7	57.6	56.8	57.6
87.5°	11.4	18.7	16.2	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)