

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: P388472

Luminaire Tested: **24CZ2-30-SQR-UNV-L940-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: P388472
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-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

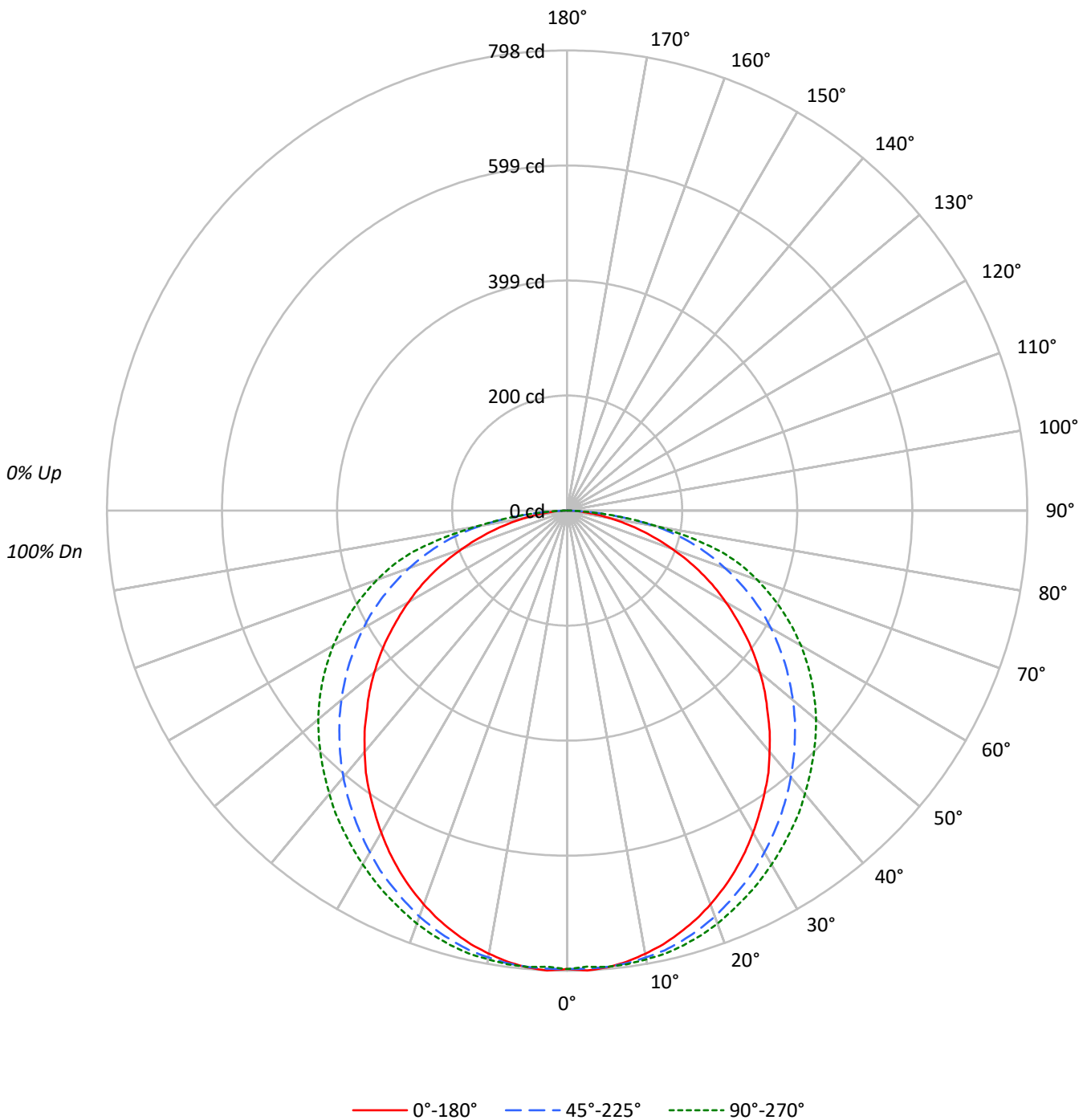
Lumens per Lamp: N/A
Luminaire Lumens: 2487.4 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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°	1070	1070	1070
5°	1074	1073	1073
10°	1066	1075	1080
15°	1055	1075	1087
20°	1041	1073	1091
25°	1023	1067	1095
30°	1002	1063	1101
35°	981	1060	1112
40°	959	1060	1127
45°	935	1063	1149
50°	913	1069	1180
55°	886	1081	1216
60°	855	1098	1260
65°	819	1119	1313
70°	759	1147	1380
75°	687	1187	1443
80°	579	1190	1241
85°	443	900	900



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	3.0
10°-20°	217.1	8.7
20°-30°	329.8	13.3
30°-40°	401.2	16.1
40°-50°	427.1	17.2
50°-60°	406.8	16.4
60°-70°	340.2	13.7
70°-80°	226.8	9.1
80°-90°	62.8	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°	622.4	25.0
0°-40°	1023.6	41.2
0°-60°	1857.6	74.7
0°-90°	2487.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2487.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	795	790	794	794	794	75
15°	757	759	772	778	780	214
25°	689	698	719	731	738	317
35°	597	614	646	667	677	374
45°	491	518	558	590	604	380
55°	378	411	461	501	518	338
65°	257	295	352	395	412	254
75°	132	174	228	267	278	140
85°	29	53	58	58	58	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.1	795.1	795.1	795.1	795.1
2.5°	798.4	792.6	795.1	795.1	791.8
5°	795.1	790.2	794.3	794.3	794.3
7.5°	789.3	785.2	791.8	793.5	793.5
10°	780.3	778.7	786.9	789.3	790.2
12.5°	770.5	769.6	781.1	784.4	786.9
15°	757.3	759.0	772.1	777.8	780.3
17.5°	743.3	746.6	761.4	769.6	772.1
20°	726.9	731.8	749.1	757.3	762.2
22.5°	708.8	716.2	734.3	744.2	749.9
25°	689.1	698.2	718.7	731.0	737.6
27.5°	667.8	679.3	703.1	717.1	723.6
30°	644.8	657.9	684.2	700.6	708.8
32.5°	621.0	636.6	665.3	683.4	693.2
35°	597.1	614.4	645.6	667.0	676.8
37.5°	573.3	590.6	625.1	648.1	660.4
40°	546.2	566.8	603.7	629.2	641.5
42.5°	519.9	542.1	581.5	609.5	622.6
45°	491.2	517.5	558.5	589.7	603.7
47.5°	464.9	491.2	535.5	568.4	584.0
50°	436.2	464.1	510.9	547.0	563.5
52.5°	408.2	437.0	486.3	524.9	541.3
55°	377.8	410.7	460.8	501.0	518.3
57.5°	347.4	382.8	434.5	476.4	493.6
60°	317.9	354.0	408.2	450.1	468.2
62.5°	288.3	324.4	381.1	423.8	441.1
65°	257.1	294.9	351.5	395.1	412.3
67.5°	225.9	265.3	322.0	365.5	381.9
70°	193.0	234.9	291.6	334.3	350.7
72.5°	162.6	204.5	260.4	302.3	317.9
75°	132.2	174.1	228.3	266.9	277.6
77.5°	102.7	144.6	193.0	218.5	221.0
80°	74.7	114.2	153.6	161.0	160.2
82.5°	50.1	85.4	106.0	106.8	109.2
85°	28.7	53.4	58.3	57.5	58.3
87.5°	11.5	18.9	16.4	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)