

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: P388685

Luminaire Tested: **24CZ2-45-SQR-UNV-L935-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: P388685
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: 24CZ2-45-SQR-UNV-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

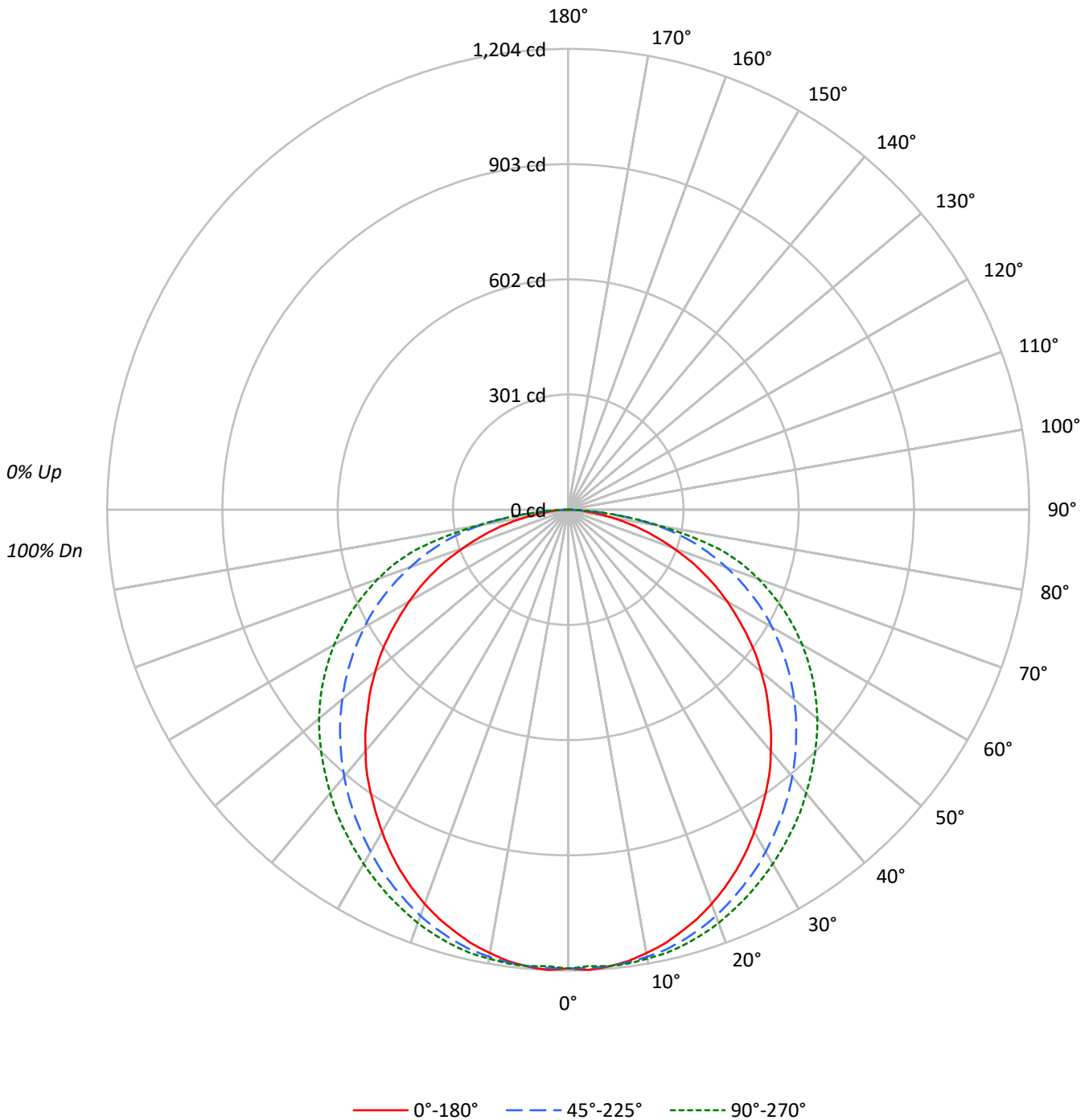
Lumens per Lamp: N/A
Luminaire Lumens: 3749.7 lumens
Efficiency: N/A
Efficacy: 87.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 42.9
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°	1613	1613	1613
5°	1619	1617	1617
10°	1607	1621	1627
15°	1590	1621	1639
20°	1569	1617	1645
25°	1542	1608	1651
30°	1510	1602	1660
35°	1479	1599	1676
40°	1446	1599	1698
45°	1409	1602	1732
50°	1376	1612	1778
55°	1336	1629	1833
60°	1290	1656	1899
65°	1234	1687	1979
70°	1145	1729	2080
75°	1037	1789	2176
80°	873	1794	1871
85°	668	1357	1357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.8	3.0
10°-20°	327.3	8.7
20°-30°	497.2	13.3
30°-40°	604.8	16.1
40°-50°	643.9	17.2
50°-60°	613.3	16.4
60°-70°	512.9	13.7
70°-80°	341.9	9.1
80°-90°	94.6	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°	938.3	25.0
0°-40°	1543.1	41.2
0°-60°	2800.3	74.7
0°-90°	3749.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3749.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1199	1199	1199	1199	1199	
5°	1199	1191	1197	1197	1197	114
15°	1142	1144	1164	1173	1176	322
25°	1039	1052	1083	1102	1112	478
35°	900	926	973	1005	1020	563
45°	740	780	842	889	910	572
55°	570	619	695	755	781	509
65°	388	444	530	596	622	383
75°	199	262	344	402	418	211
85°	43	80	88	87	88	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.6	1198.6	1198.6	1198.6	1198.6
2.5°	1203.5	1194.9	1198.6	1198.6	1193.6
5°	1198.6	1191.2	1197.3	1197.3	1197.3
7.5°	1189.9	1183.7	1193.6	1196.1	1196.1
10°	1176.3	1173.8	1186.2	1189.9	1191.2
12.5°	1161.4	1160.2	1177.5	1182.5	1186.2
15°	1141.6	1144.1	1163.9	1172.6	1176.3
17.5°	1120.6	1125.5	1147.8	1160.2	1163.9
20°	1095.8	1103.2	1129.2	1141.6	1149.1
22.5°	1068.6	1079.7	1107.0	1121.8	1130.5
25°	1038.9	1052.5	1083.4	1102.0	1111.9
27.5°	1006.7	1024.0	1059.9	1081.0	1090.9
30°	972.0	991.8	1031.4	1056.2	1068.6
32.5°	936.1	959.6	1002.9	1030.2	1045.0
35°	900.2	926.2	973.2	1005.4	1020.3
37.5°	864.3	890.3	942.3	976.9	995.5
40°	823.4	854.4	910.1	948.5	967.0
42.5°	783.8	817.2	876.7	918.8	938.6
45°	740.4	780.1	842.0	889.0	910.1
47.5°	700.8	740.4	807.3	856.8	880.4
50°	657.5	699.6	770.2	824.6	849.4
52.5°	615.4	658.7	733.0	791.2	816.0
55°	569.6	619.1	694.6	755.3	781.3
57.5°	523.8	577.0	655.0	718.2	744.2
60°	479.2	533.7	615.4	678.5	705.8
62.5°	434.6	489.1	574.5	638.9	664.9
65°	387.6	444.5	530.0	595.6	621.6
67.5°	340.5	399.9	485.4	551.0	575.8
70°	291.0	354.1	439.6	504.0	528.7
72.5°	245.2	308.3	392.5	455.7	479.2
75°	199.4	262.5	344.2	402.4	418.5
77.5°	154.8	217.9	291.0	329.4	333.1
80°	112.7	172.1	231.5	242.7	241.5
82.5°	75.5	128.8	159.7	161.0	164.7
85°	43.3	80.5	87.9	86.7	87.9
87.5°	17.3	28.5	24.8	18.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)