

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: P388803

Luminaire Tested: **24CZ2-50VHE-SQR-UNV-L935-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: P388803
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: 24CZ2-50VHE-SQR-UNV-L935-CD1-SDWPD1-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: 4011.9 lumens
Efficiency: N/A
Efficacy: 122.7 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

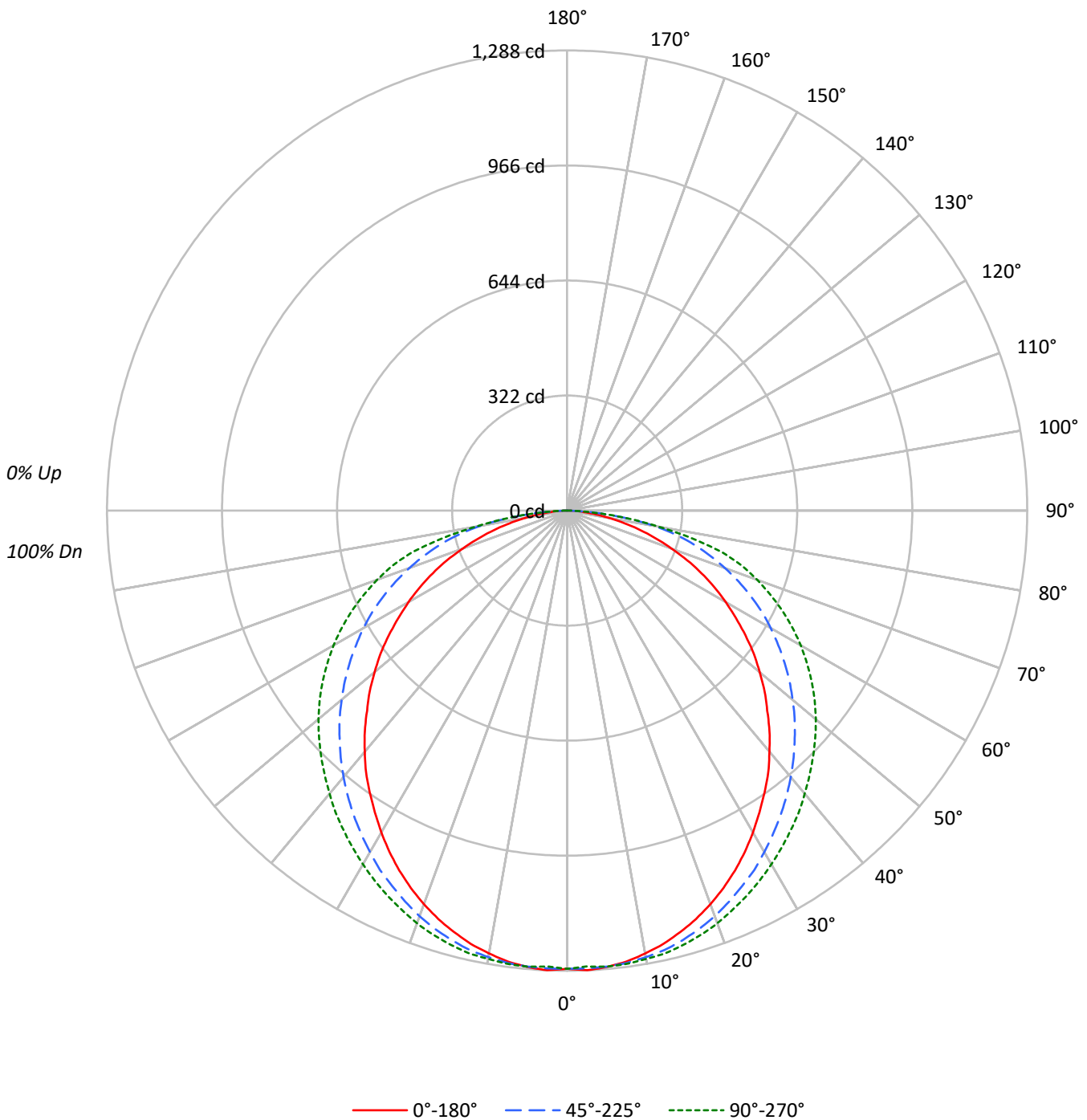
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1725	1725	1725
5°	1732	1730	1730
10°	1720	1734	1741
15°	1701	1735	1753
20°	1679	1730	1760
25°	1650	1721	1766
30°	1616	1715	1776
35°	1582	1710	1793
40°	1547	1710	1817
45°	1507	1714	1853
50°	1473	1725	1902
55°	1430	1743	1961
60°	1380	1772	2032
65°	1320	1805	2117
70°	1225	1850	2225
75°	1109	1915	2328
80°	934	1919	2001
85°	716	1453	1453



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.7	3.0
10°-20°	350.2	8.7
20°-30°	532.0	13.3
30°-40°	647.1	16.1
40°-50°	688.9	17.2
50°-60°	656.2	16.4
60°-70°	548.7	13.7
70°-80°	365.9	9.1
80°-90°	101.2	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°	1003.9	25.0
0°-40°	1651.0	41.2
0°-60°	2996.1	74.7
0°-90°	4011.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4011.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1282	1282	1282	1282	1282	
5°	1282	1274	1281	1281	1281	122
15°	1222	1224	1245	1255	1259	344
25°	1112	1126	1159	1179	1190	512
35°	963	991	1041	1076	1092	603
45°	792	835	901	951	974	612
55°	609	662	743	808	836	545
65°	415	476	567	637	665	410
75°	213	281	368	431	448	226
85°	46	86	94	93	94	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1282.4	1282.4	1282.4	1282.4	1282.4
2.5°	1287.7	1278.4	1282.4	1282.4	1277.1
5°	1282.4	1274.4	1281.1	1281.1	1281.1
7.5°	1273.1	1266.5	1277.1	1279.7	1279.7
10°	1258.6	1255.9	1269.2	1273.1	1274.4
12.5°	1242.7	1241.3	1259.9	1265.2	1269.2
15°	1221.5	1224.1	1245.3	1254.6	1258.6
17.5°	1198.9	1204.2	1228.1	1241.3	1245.3
20°	1172.4	1180.4	1208.2	1221.5	1229.4
22.5°	1143.3	1155.2	1184.4	1200.3	1209.5
25°	1111.5	1126.1	1159.2	1179.1	1189.7
27.5°	1077.1	1095.6	1134.0	1156.5	1167.1
30°	1040.0	1061.2	1103.6	1130.0	1143.3
32.5°	1001.5	1026.7	1073.1	1102.2	1118.1
35°	963.1	990.9	1041.3	1075.7	1091.6
37.5°	924.7	952.5	1008.2	1045.3	1065.1
40°	881.0	914.1	973.7	1014.8	1034.7
42.5°	838.6	874.4	938.0	983.0	1004.2
45°	792.2	834.6	900.9	951.2	973.7
47.5°	749.8	792.2	863.8	916.8	941.9
50°	703.5	748.5	824.0	882.3	908.8
52.5°	658.4	704.8	784.3	846.5	873.0
55°	609.4	662.4	743.2	808.1	835.9
57.5°	560.4	617.4	700.8	768.4	796.2
60°	512.7	571.0	658.4	726.0	755.1
62.5°	465.0	523.3	614.7	683.6	711.4
65°	414.7	475.6	567.0	637.2	665.0
67.5°	364.3	427.9	519.3	589.5	616.0
70°	311.3	378.9	470.3	539.2	565.7
72.5°	262.3	329.9	420.0	487.5	512.7
75°	213.3	280.9	368.3	430.6	447.8
77.5°	165.6	233.2	311.3	352.4	356.4
80°	120.6	184.1	247.7	259.7	258.3
82.5°	80.8	137.8	170.9	172.2	176.2
85°	46.4	86.1	94.1	92.7	94.1
87.5°	18.5	30.5	26.5	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)