

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: P390581

Luminaire Tested: **22CZ2-65VHE-RDP-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: P390581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-65VHE-RDP-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3768.3 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

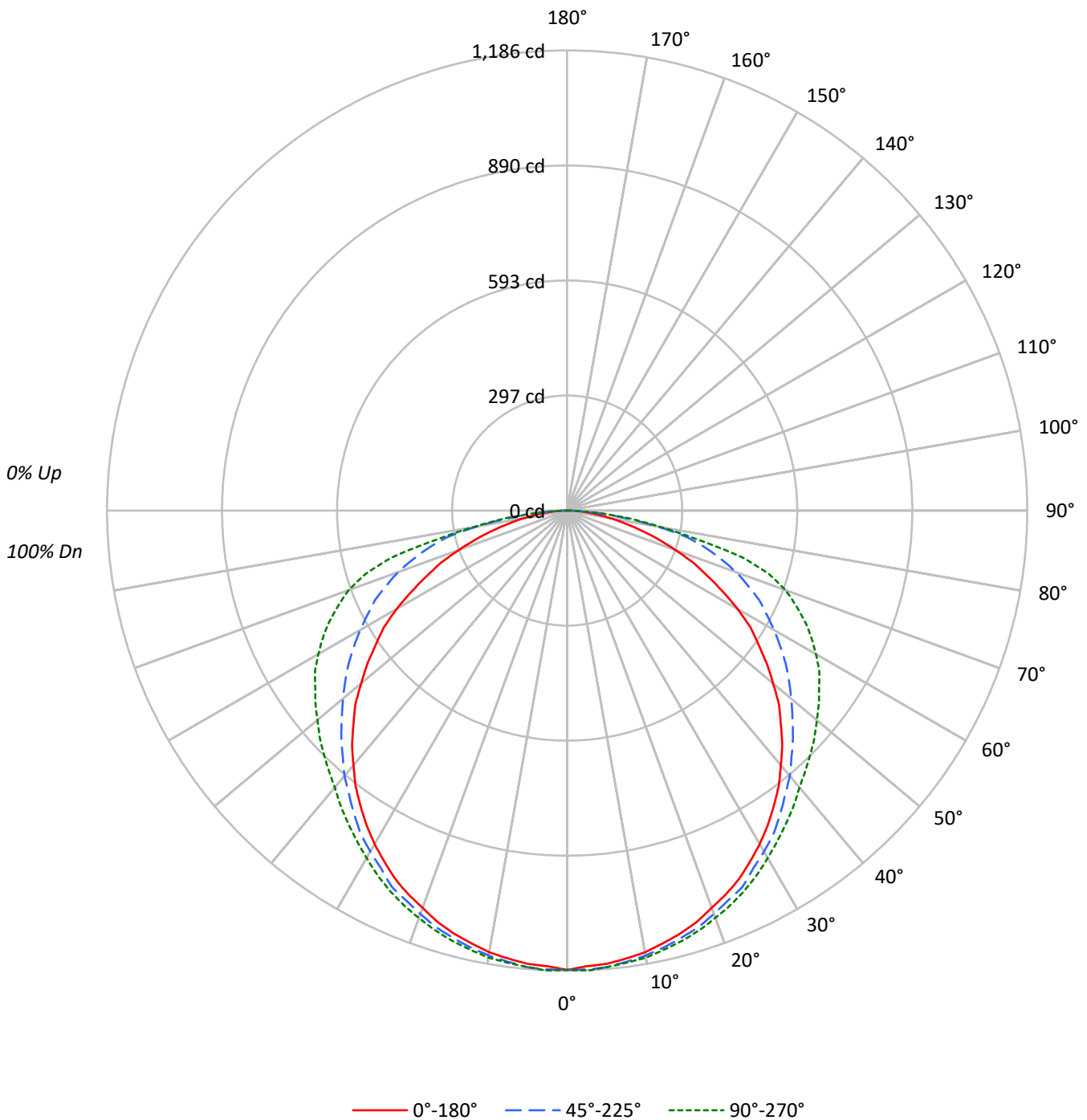
Input Watts (W): 47.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3185	3185	3185
5°	3167	3190	3190
10°	3159	3181	3196
15°	3143	3174	3197
20°	3120	3168	3199
25°	3111	3177	3210
30°	3084	3153	3213
35°	3051	3142	3233
40°	3009	3136	3272
45°	2965	3133	3376
50°	2901	3157	3516
55°	2822	3225	3719
60°	2730	3312	3984
65°	2542	3477	4307
70°	2334	3642	4711
75°	2046	3833	4871
80°	1762	3651	3823
85°	1541	2652	2912



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.0	3.0
10°-20°	321.5	8.5
20°-30°	490.5	13.0
30°-40°	598.9	15.9
40°-50°	640.4	17.0
50°-60°	618.1	16.4
60°-70°	532.1	14.1
70°-80°	360.0	9.6
80°-90°	95.0	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°	923.9	24.5
0°-40°	1522.8	40.4
0°-60°	2781.3	73.8
0°-90°	3768.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3768.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1173	1175	1181	1181	1181	111
15°	1128	1131	1139	1145	1148	318
25°	1048	1053	1070	1076	1081	482
35°	929	937	956	976	984	581
45°	779	793	823	865	887	601
55°	602	621	688	757	793	539
65°	399	438	546	632	676	397
75°	197	261	369	444	468	211
85°	50	69	86	89	94	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1183.7	1183.7	1183.7	1183.7	<i>1183.7</i>
2.5°	<i>1175.4</i>	<i>1178.1</i>	<i>1183.7</i>	<i>1183.7</i>	<i>1186.5</i>
5°	1172.6	1175.4	1180.9	1180.9	<i>1180.9</i>
7.5°	1164.3	1167.1	1172.6	1175.4	<i>1175.4</i>
10°	1156.0	1158.7	1164.3	1167.1	<i>1169.8</i>
12.5°	1142.1	1144.9	1153.2	1158.7	<i>1158.7</i>
15°	1128.2	1131.0	1139.3	1144.9	<i>1147.7</i>
17.5°	1111.6	1117.2	1125.5	1131.0	<i>1133.8</i>
20°	1089.4	1095.0	1106.1	1114.4	<i>1117.2</i>
22.5°	1070.0	1075.6	1086.7	1095.0	<i>1100.5</i>
25°	1047.9	1053.4	1070.0	1075.6	<i>1081.1</i>
27.5°	1020.1	1025.7	1039.5	1050.6	<i>1058.9</i>
30°	992.4	998.0	1014.6	1028.5	<i>1034.0</i>
32.5°	961.9	970.2	989.6	1000.7	<i>1009.0</i>
35°	928.7	937.0	956.4	975.8	<i>984.1</i>
37.5°	895.4	903.7	923.1	948.1	<i>959.1</i>
40°	856.6	867.7	892.6	925.9	<i>931.4</i>
42.5°	820.5	834.4	856.6	895.4	<i>909.3</i>
45°	779.0	792.8	823.3	864.9	<i>887.1</i>
47.5°	740.2	754.0	787.3	837.2	<i>864.9</i>
50°	693.0	712.4	754.0	812.2	<i>839.9</i>
52.5°	648.7	665.3	720.7	784.5	<i>817.8</i>
55°	601.5	621.0	687.5	756.8	<i>792.8</i>
57.5°	560.0	576.6	651.4	729.1	<i>770.6</i>
60°	507.3	529.5	615.4	698.6	<i>740.2</i>
62.5°	451.9	485.1	579.4	665.3	<i>709.7</i>
65°	399.2	438.0	546.1	632.0	<i>676.4</i>
67.5°	352.1	393.6	504.5	596.0	<i>637.6</i>
70°	296.6	349.3	462.9	551.6	<i>598.8</i>
72.5°	246.7	304.9	415.8	504.5	<i>546.1</i>
75°	196.8	260.6	368.7	443.5	<i>468.5</i>
77.5°	152.5	213.5	316.0	338.2	<i>341.0</i>
80°	113.7	169.1	235.6	238.4	<i>246.7</i>
82.5°	77.6	119.2	152.5	166.3	<i>169.1</i>
85°	49.9	69.3	85.9	88.7	<i>94.3</i>
87.5°	22.2	24.9	30.5	27.7	<i>27.7</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)