

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: P390414

Luminaire Tested: **22CZ2-50VHE-HRP-UNV-L950-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: P390414  
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: 22CZ2-50VHE-HRP-UNV-L950-CD1-SDWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3826.0 lumens  
Efficiency: N/A  
Efficacy: 105.7 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

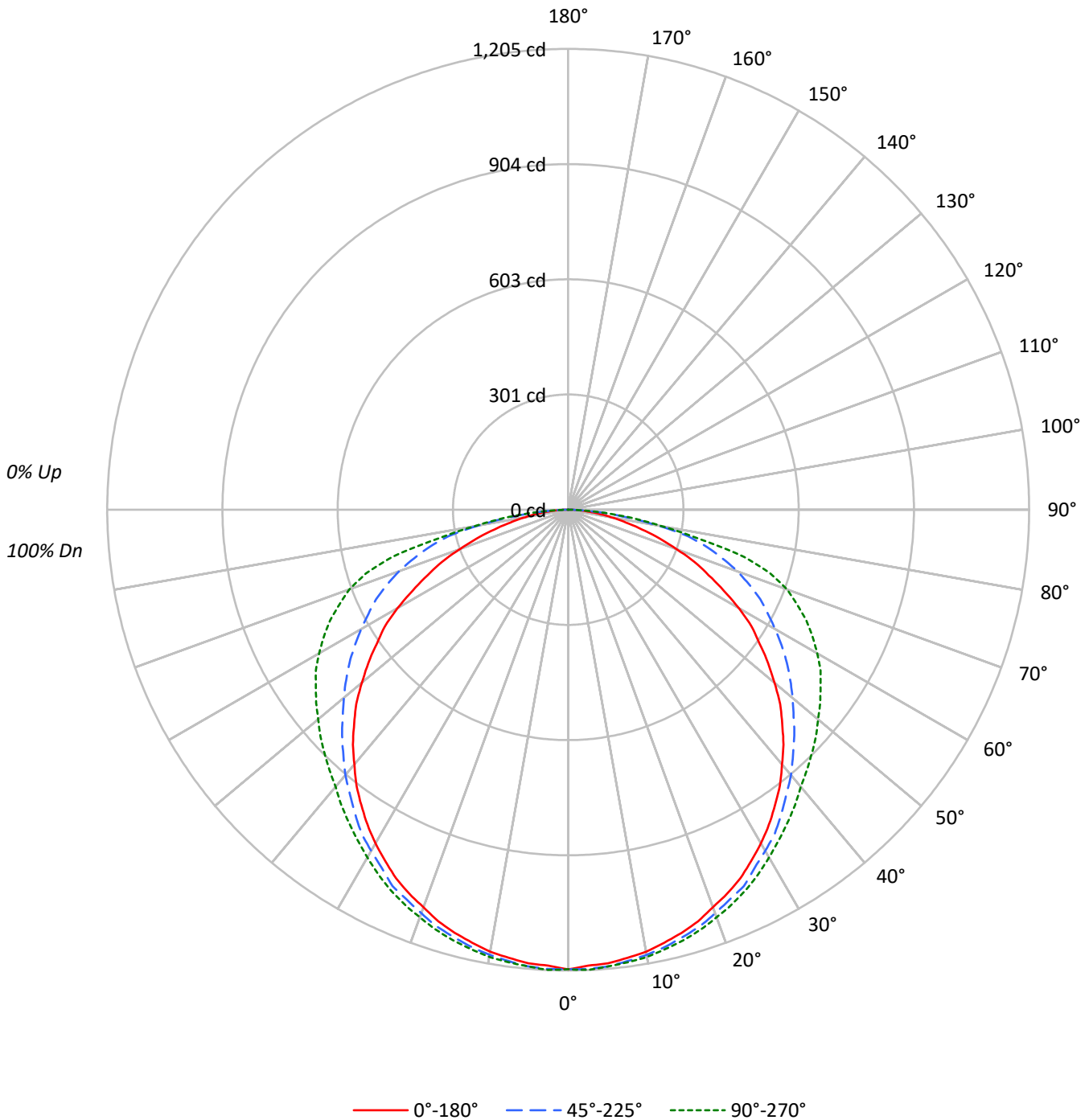
Input Watts (W): 36.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	3234	3234	3234
5°	3216	3239	3239
10°	3207	3230	3245
15°	3191	3223	3246
20°	3168	3216	3248
25°	3159	3226	3259
30°	3131	3201	3262
35°	3098	3190	3282
40°	3055	3184	3322
45°	3010	3181	3428
50°	2946	3205	3570
55°	2866	3275	3777
60°	2772	3363	4045
65°	2581	3531	4373
70°	2370	3698	4783
75°	2077	3892	4946
80°	1788	3707	3882
85°	1565	2695	2955



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.7	3.0
10°-20°	326.4	8.5
20°-30°	498.0	13.0
30°-40°	608.1	15.9
40°-50°	650.2	17.0
50°-60°	627.5	16.4
60°-70°	540.2	14.1
70°-80°	365.5	9.6
80°-90°	96.4	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°	938.1	24.5
0°-40°	1546.1	40.4
0°-60°	2823.9	73.8
0°-90°	3826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3826.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1191	1193	1199	1199	1199	113
15°	1146	1148	1157	1162	1165	323
25°	1064	1070	1086	1092	1098	490
35°	943	951	971	991	999	590
45°	791	805	836	878	901	610
55°	611	630	698	768	805	547
65°	405	445	554	642	687	403
75°	200	265	374	450	476	214
85°	51	70	87	90	96	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.8	1201.8	1201.8	1201.8	1201.8
2.5°	1193.4	1196.2	1201.8	1201.8	1204.6
5°	1190.6	1193.4	1199.0	1199.0	1199.0
7.5°	1182.1	1184.9	1190.6	1193.4	1193.4
10°	1173.7	1176.5	1182.1	1184.9	1187.7
12.5°	1159.6	1162.4	1170.9	1176.5	1176.5
15°	1145.5	1148.3	1156.8	1162.4	1165.2
17.5°	1128.6	1134.3	1142.7	1148.3	1151.2
20°	1106.1	1111.7	1123.0	1131.4	1134.3
22.5°	1086.4	1092.0	1103.3	1111.7	1117.4
25°	1063.9	1069.5	1086.4	1092.0	1097.7
27.5°	1035.8	1041.4	1055.5	1066.7	1075.2
30°	1007.6	1013.2	1030.1	1044.2	1049.8
32.5°	976.6	985.1	1004.8	1016.1	1024.5
35°	942.9	951.3	971.0	990.7	999.2
37.5°	909.1	917.5	937.2	962.6	973.8
40°	869.7	881.0	906.3	940.1	945.7
42.5°	833.1	847.2	869.7	909.1	923.2
45°	790.9	805.0	835.9	878.1	900.7
47.5°	751.5	765.6	799.3	850.0	878.1
50°	703.6	723.3	765.6	824.7	852.8
52.5°	658.6	675.5	731.8	796.5	830.3
55°	610.8	630.5	698.0	768.4	805.0
57.5°	568.5	585.4	661.4	740.2	782.4
60°	515.1	537.6	624.8	709.3	751.5
62.5°	458.8	492.5	588.2	675.5	720.5
65°	405.3	444.7	554.5	641.7	686.8
67.5°	357.4	399.7	512.2	605.1	647.3
70°	301.2	354.6	470.0	560.1	607.9
72.5°	250.5	309.6	422.2	512.2	554.5
75°	199.8	264.6	374.3	450.3	475.7
77.5°	154.8	216.7	320.9	343.4	346.2
80°	115.4	171.7	239.2	242.1	250.5
82.5°	78.8	121.0	154.8	168.9	171.7
85°	50.7	70.4	87.3	90.1	95.7
87.5°	22.5	25.3	31.0	28.1	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)