

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: P390124

Luminaire Tested: **22CZ2-20VHE-HRP-UNV-L940-CD1-SWPD1-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: P390124  
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: 22CZ2-20VHE-HRP-UNV-L940-CD1-SWPD1-U  
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

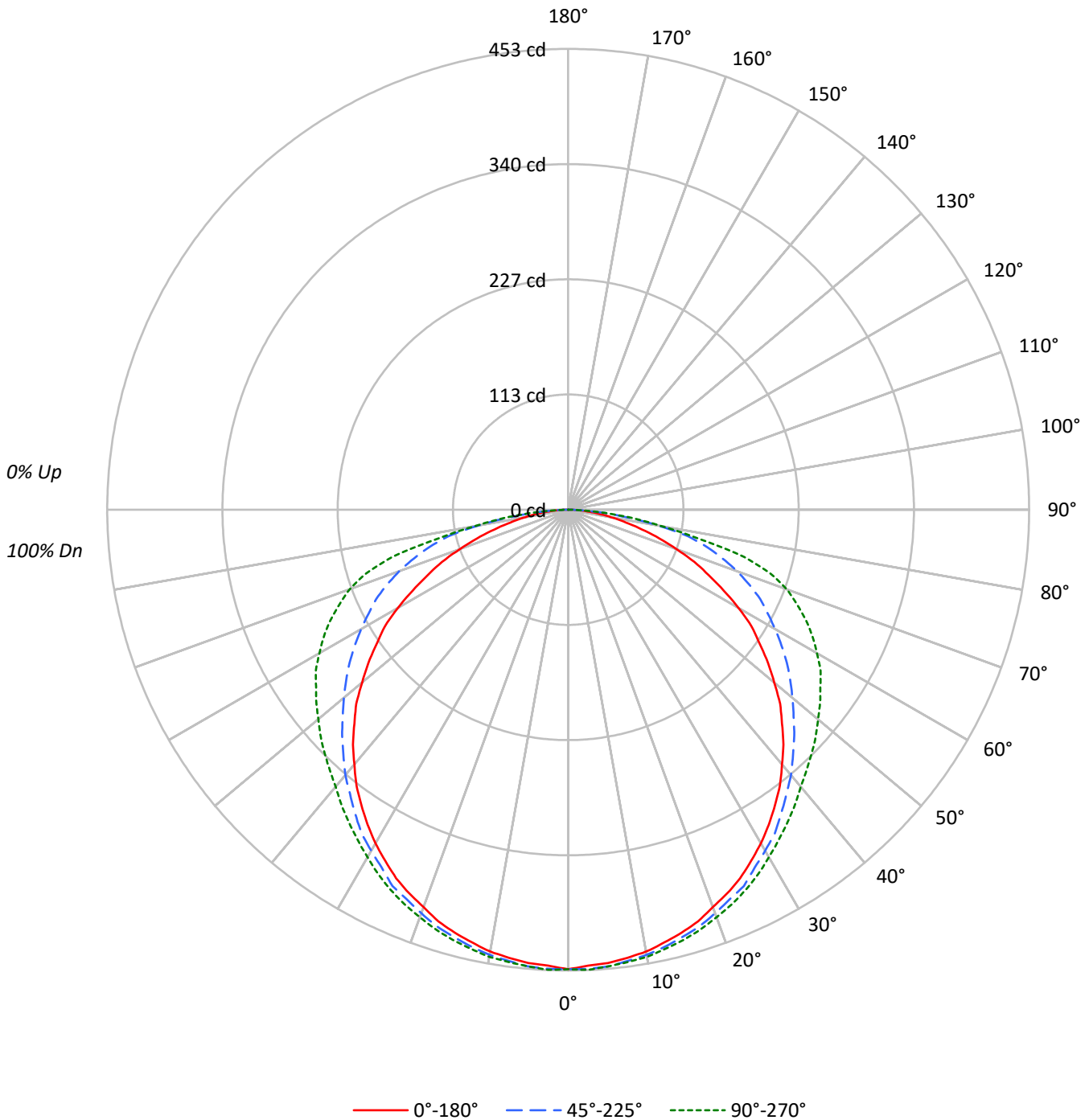
Lumens per Lamp: N/A  
Luminaire Lumens: 1437.9 lumens  
Efficiency: N/A  
Efficacy: 101.3 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 14.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1216	1216	1216
5°	1209	1217	1217
10°	1205	1214	1220
15°	1199	1211	1220
20°	1190	1209	1221
25°	1187	1212	1225
30°	1177	1203	1226
35°	1164	1199	1234
40°	1148	1196	1248
45°	1131	1196	1288
50°	1107	1204	1342
55°	1077	1231	1419
60°	1042	1264	1520
65°	970	1327	1643
70°	891	1389	1798
75°	781	1463	1859
80°	673	1393	1458
85°	587	1013	1112



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.7	3.0
10°-20°	122.7	8.5
20°-30°	187.2	13.0
30°-40°	228.5	15.9
40°-50°	244.3	17.0
50°-60°	235.8	16.4
60°-70°	203.0	14.1
70°-80°	137.4	9.6
80°-90°	36.2	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°	352.6	24.5
0°-40°	581.1	40.4
0°-60°	1061.3	73.8
0°-90°	1437.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	452	452	452	452	452	
5°	447	448	451	451	451	42
15°	430	432	435	437	438	121
25°	400	402	408	410	412	184
35°	354	358	365	372	376	222
45°	297	302	314	330	338	229
55°	230	237	262	289	302	206
65°	152	167	208	241	258	151
75°	75	99	141	169	179	81
85°	19	26	33	34	36	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	451.7	451.7	451.7	451.7	451.7
2.5°	448.5	449.6	451.7	451.7	452.7
5°	447.4	448.5	450.6	450.6	450.6
7.5°	444.3	445.3	447.4	448.5	448.5
10°	441.1	442.1	444.3	445.3	446.4
12.5°	435.8	436.9	440.0	442.1	442.1
15°	430.5	431.6	434.7	436.9	437.9
17.5°	424.2	426.3	429.5	431.6	432.6
20°	415.7	417.8	422.1	425.2	426.3
22.5°	408.3	410.4	414.6	417.8	419.9
25°	399.8	402.0	408.3	410.4	412.5
27.5°	389.3	391.4	396.7	400.9	404.1
30°	378.7	380.8	387.1	392.4	394.5
32.5°	367.0	370.2	377.6	381.9	385.0
35°	354.4	357.5	364.9	372.3	375.5
37.5°	341.7	344.8	352.2	361.8	366.0
40°	326.9	331.1	340.6	353.3	355.4
42.5°	313.1	318.4	326.9	341.7	346.9
45°	297.2	302.5	314.2	330.0	338.5
47.5°	282.4	287.7	300.4	319.4	330.0
50°	264.4	271.8	287.7	309.9	320.5
52.5°	247.5	253.9	275.0	299.3	312.0
55°	229.5	236.9	262.3	288.8	302.5
57.5°	213.7	220.0	248.6	278.2	294.1
60°	193.6	202.0	234.8	266.6	282.4
62.5°	172.4	185.1	221.1	253.9	270.8
65°	152.3	167.1	208.4	241.2	258.1
67.5°	134.3	150.2	192.5	227.4	243.3
70°	113.2	133.3	176.6	210.5	228.5
72.5°	94.1	116.4	158.7	192.5	208.4
75°	75.1	99.4	140.7	169.2	178.8
77.5°	58.2	81.4	120.6	129.0	130.1
80°	43.4	64.5	89.9	91.0	94.1
82.5°	29.6	45.5	58.2	63.5	64.5
85°	19.0	26.4	32.8	33.8	36.0
87.5°	8.5	9.5	11.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)