

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: P391328

Luminaire Tested: **24CZ2-40VHE-HRP-UNV-L950-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: P391328
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-HRP-UNV-L950-CD1-U
Description: 2x4 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: 3110.9 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

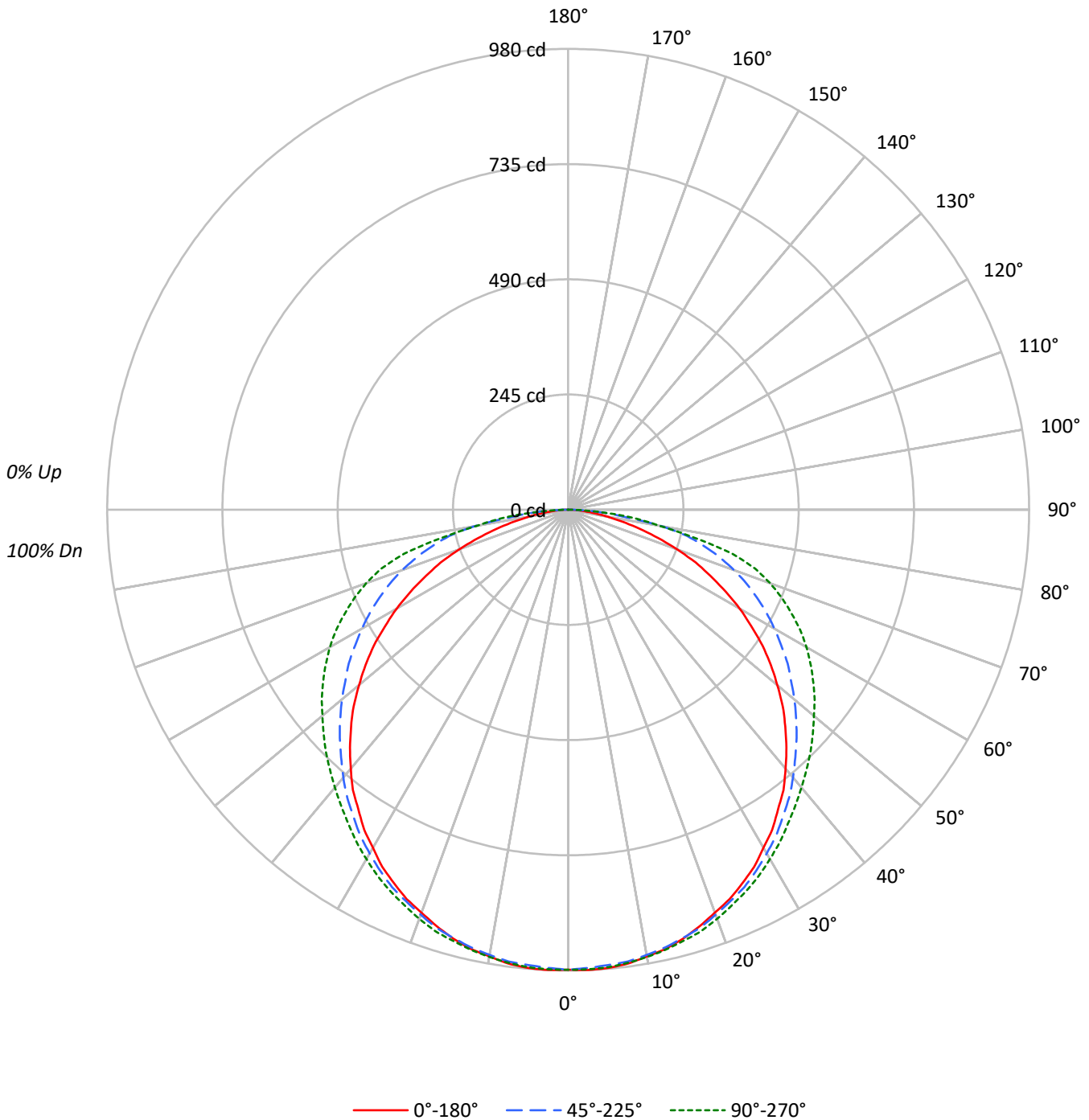
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391328

CATALOG NUMBER: 24CZ2-40VHE-HRP-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391328

CATALOG NUMBER: 24CZ2-40VHE-HRP-UNV-L950-CD1-U

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		88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27		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°	1316	1316	1316
5°	1321	1313	1319
10°	1318	1313	1320
15°	1315	1313	1322
20°	1306	1312	1326
25°	1301	1315	1329
30°	1290	1311	1333
35°	1277	1308	1338
40°	1263	1306	1355
45°	1242	1307	1386
50°	1214	1315	1428
55°	1184	1336	1491
60°	1134	1362	1574
65°	1061	1410	1670
70°	965	1475	1797
75°	818	1556	1877
80°	645	1566	1519
85°	477	1192	1334



TEST NUMBER: P391328

CATALOG NUMBER: 24CZ2-40VHE-HRP-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	3.0
10°-20°	267.1	8.6
20°-30°	408.4	13.1
30°-40°	499.3	16.0
40°-50°	532.1	17.1
50°-60°	508.8	16.4
60°-70°	431.0	13.9
70°-80°	289.7	9.3
80°-90°	81.7	2.6
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°	768.3	24.7
0°-40°	1267.6	40.7
0°-60°	2308.5	74.2
0°-90°	3110.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3110.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	978	977	972	977	977	93
15°	944	944	943	950	949	266
25°	876	880	886	893	895	404
35°	778	784	796	812	815	487
45°	653	664	687	716	728	503
55°	505	523	569	614	636	449
65°	333	367	443	502	525	331
75°	157	214	299	350	361	169
85°	31	63	77	83	86	38
90°	0	0	0	0	0	



TEST NUMBER: P391328

CATALOG NUMBER: 24CZ2-40VHE-HRP-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.3	978.3	978.3	978.3	978.3
2.5°	979.8	979.8	975.2	978.3	978.3
5°	978.3	976.7	972.1	976.7	976.7
7.5°	973.7	972.1	969.0	973.7	972.1
10°	964.4	964.4	961.3	965.9	965.9
12.5°	956.7	955.1	953.6	959.8	958.2
15°	944.3	944.3	942.8	950.5	949.0
17.5°	928.9	930.5	932.0	938.2	939.7
20°	911.9	915.0	916.6	925.8	925.8
22.5°	896.5	898.1	901.1	910.4	910.4
25°	876.4	879.5	885.7	893.4	895.0
27.5°	856.4	857.9	865.6	876.4	878.0
30°	830.2	834.8	844.0	856.4	857.9
32.5°	807.0	811.6	822.4	834.8	837.9
35°	777.7	783.9	796.2	811.6	814.7
37.5°	751.5	756.1	771.5	788.5	793.1
40°	719.1	728.3	743.7	763.8	771.5
42.5°	686.7	695.9	714.4	740.7	749.9
45°	652.7	663.5	686.7	716.0	728.3
47.5°	618.8	631.1	657.3	691.3	705.2
50°	580.2	595.6	628.0	666.6	682.0
52.5°	543.2	561.7	597.2	640.4	660.4
55°	504.6	523.1	569.4	614.1	635.7
57.5°	461.4	486.1	537.0	587.9	611.0
60°	421.3	444.4	506.1	561.7	584.8
62.5°	378.0	408.9	475.3	533.9	557.0
65°	333.3	367.2	442.9	501.5	524.6
67.5°	293.2	330.2	410.4	469.1	492.2
70°	245.3	291.6	375.0	433.6	456.7
72.5°	200.6	251.5	337.9	395.0	416.6
75°	157.4	214.5	299.4	350.3	361.1
77.5°	117.3	177.4	259.2	280.8	273.1
80°	83.3	142.0	202.1	191.3	196.0
82.5°	54.0	108.0	125.0	142.0	146.6
85°	30.9	63.3	77.2	83.3	86.4
87.5°	13.9	23.1	30.9	30.9	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)