

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: P390560

Luminaire Tested: **22CZ2-65VHE-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: P390560
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-HRP-UNV-L950-CD1-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: 5048.1 lumens
Efficiency: N/A
Efficacy: 105.4 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

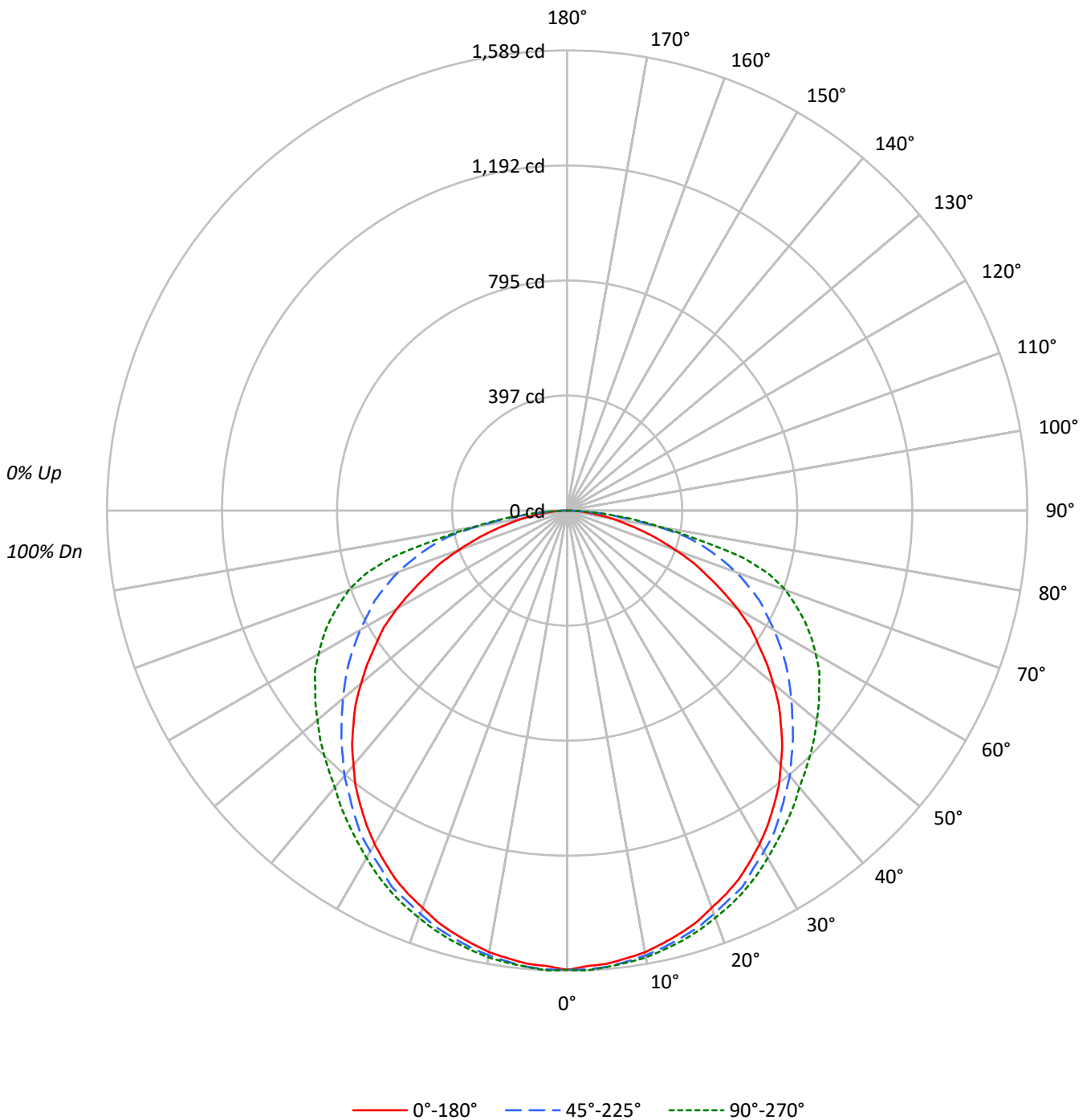
Input Watts (W): 47.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390560

CATALOG NUMBER: 22CZ2-65VHE-HRP-UNV-L950-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390560

CATALOG NUMBER: 22CZ2-65VHE-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	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	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4267	4267	4267
5°	4243	4273	4273
10°	4232	4262	4282
15°	4211	4252	4283
20°	4179	4243	4286
25°	4168	4256	4300
30°	4131	4223	4304
35°	4087	4209	4331
40°	4031	4201	4383
45°	3971	4197	4522
50°	3887	4229	4711
55°	3780	4321	4983
60°	3658	4437	5336
65°	3405	4658	5769
70°	3127	4880	6311
75°	2742	5135	6525
80°	2360	4892	5122
85°	2062	3554	3900



TEST NUMBER: P390560

CATALOG NUMBER: 22CZ2-65VHE-HRP-UNV-L950-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.0	3.0
10°-20°	430.7	8.5
20°-30°	657.1	13.0
30°-40°	802.3	15.9
40°-50°	857.8	17.0
50°-60°	828.0	16.4
60°-70°	712.8	14.1
70°-80°	482.2	9.6
80°-90°	127.2	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°	1237.7	24.5
0°-40°	2040.0	40.4
0°-60°	3725.8	73.8
0°-90°	5048.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5048.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1586	1586	1586	1586	1586	
5°	1571	1575	1582	1582	1582	149
15°	1511	1515	1526	1534	1537	426
25°	1404	1411	1433	1441	1448	646
35°	1244	1255	1281	1307	1318	778
45°	1044	1062	1103	1159	1188	805
55°	806	832	921	1014	1062	722
65°	535	587	732	847	906	532
75°	264	349	494	594	628	283
85°	67	93	115	119	126	75
90°	0	0	0	0	0	



TEST NUMBER: P390560

CATALOG NUMBER: 22CZ2-65VHE-HRP-UNV-L950-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1585.7	1585.7	1585.7	1585.7	1585.7
2.5°	1574.6	1578.3	1585.7	1585.7	1589.4
5°	1570.8	1574.6	1582.0	1582.0	1582.0
7.5°	1559.7	1563.4	1570.8	1574.6	1574.6
10°	1548.6	1552.3	1559.7	1563.4	1567.1
12.5°	1530.0	1533.7	1544.8	1552.3	1552.3
15°	1511.4	1515.1	1526.3	1533.7	1537.4
17.5°	1489.1	1496.6	1507.7	1515.1	1518.9
20°	1459.4	1466.9	1481.7	1492.9	1496.6
22.5°	1433.4	1440.9	1455.7	1466.9	1474.3
25°	1403.7	1411.2	1433.4	1440.9	1448.3
27.5°	1366.6	1374.0	1392.6	1407.4	1418.6
30°	1329.5	1336.9	1359.2	1377.7	1385.2
32.5°	1288.6	1299.8	1325.7	1340.6	1351.7
35°	1244.0	1255.2	1281.2	1307.2	1318.3
37.5°	1199.5	1210.6	1236.6	1270.0	1284.9
40°	1147.5	1162.3	1195.8	1240.3	1247.8
42.5°	1099.2	1117.8	1147.5	1199.5	1218.1
45°	1043.5	1062.1	1102.9	1158.6	1188.3
47.5°	991.5	1010.1	1054.7	1121.5	1158.6
50°	928.4	954.4	1010.1	1088.1	1125.2
52.5°	869.0	891.3	965.5	1050.9	1095.5
55°	805.8	831.8	921.0	1013.8	1062.1
57.5°	750.1	772.4	872.7	976.7	1032.4
60°	679.6	709.3	824.4	935.8	991.5
62.5°	605.3	649.9	776.1	891.3	950.7
65°	534.8	586.7	731.6	846.7	906.1
67.5°	471.6	527.3	675.9	798.4	854.1
70°	397.4	467.9	620.2	739.0	802.1
72.5°	330.5	408.5	557.0	675.9	731.6
75°	263.7	349.1	493.9	594.2	627.6
77.5°	204.2	285.9	423.3	453.1	456.8
80°	152.3	226.5	315.7	319.4	330.5
82.5°	104.0	159.7	204.2	222.8	226.5
85°	66.8	92.8	115.1	118.8	126.3
87.5°	29.7	33.4	40.8	37.1	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)