

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: P391462

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L930-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: P391462  
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: 24CZ2-55VHE-HRP-UNV-L930-CD1-SWPD1-U  
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3852.5 lumens  
Efficiency: N/A  
Efficacy: 106.7 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

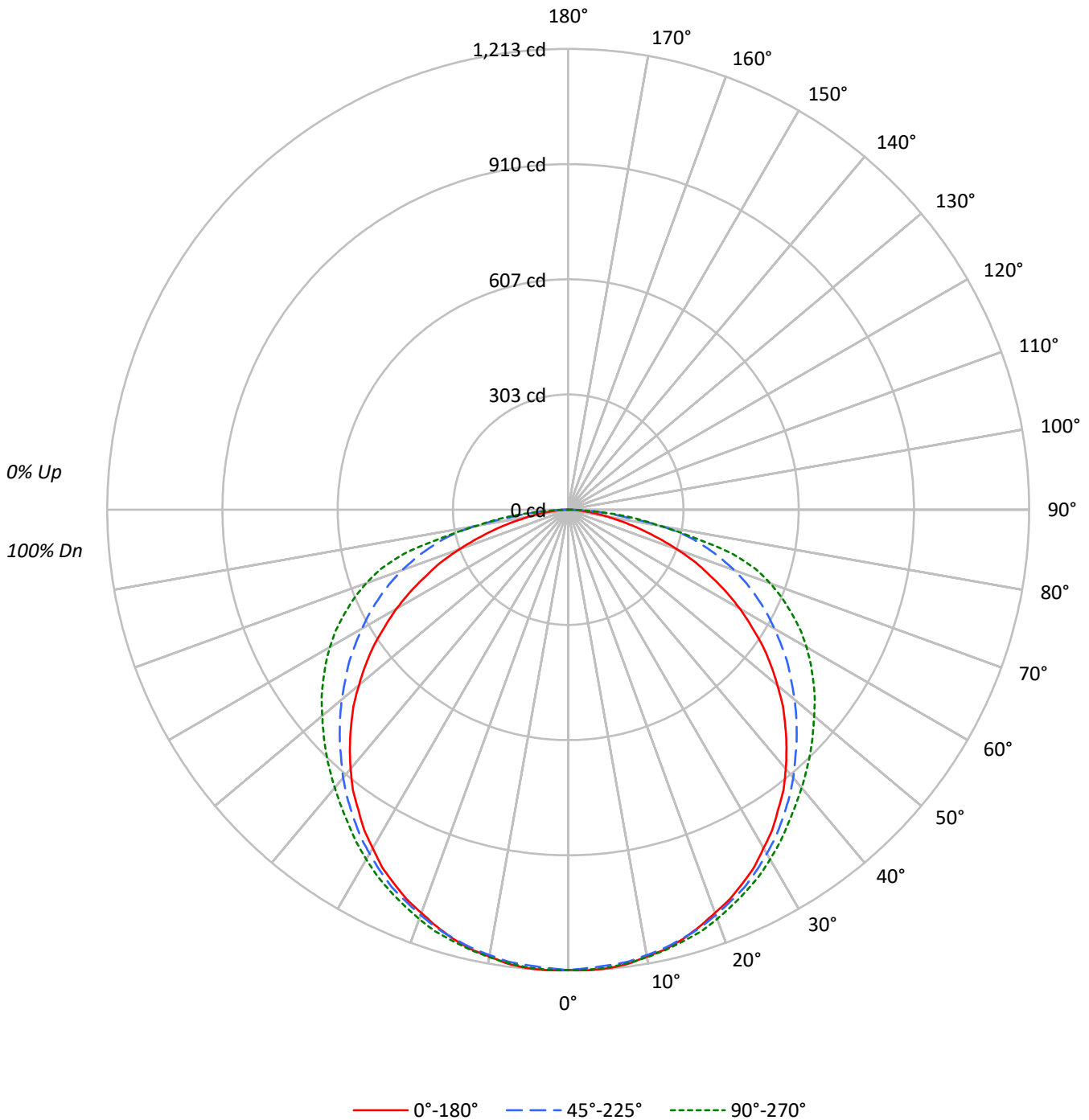
Input Watts (W): 36.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P391462

CATALOG NUMBER: 24CZ2-55VHE-HRP-UNV-L930-CD1-SWPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P391462

CATALOG NUMBER: 24CZ2-55VHE-HRP-UNV-L930-CD1-SWPD1-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°	1630	1630	1630
5°	1636	1626	1634
10°	1632	1627	1634
15°	1629	1626	1637
20°	1617	1625	1642
25°	1611	1628	1645
30°	1597	1624	1651
35°	1582	1620	1657
40°	1564	1618	1678
45°	1538	1618	1716
50°	1504	1628	1768
55°	1466	1654	1847
60°	1404	1687	1949
65°	1314	1746	2068
70°	1195	1827	2225
75°	1013	1927	2324
80°	800	1939	1881
85°	590	1474	1652



TEST NUMBER: P391462

CATALOG NUMBER: 24CZ2-55VHE-HRP-UNV-L930-CD1-SWPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.9	3.0
10°-20°	330.7	8.6
20°-30°	505.8	13.1
30°-40°	618.3	16.0
40°-50°	659.0	17.1
50°-60°	630.1	16.4
60°-70°	533.8	13.9
70°-80°	358.7	9.3
80°-90°	101.2	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°	951.5	24.7
0°-40°	1569.8	40.7
0°-60°	2858.8	74.2
0°-90°	3852.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3852.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1212	1212	1212	1212	1212	
5°	1212	1210	1204	1210	1210	115
15°	1170	1170	1168	1177	1175	330
25°	1085	1089	1097	1106	1108	500
35°	963	971	986	1005	1009	603
45°	808	822	850	887	902	623
55°	625	648	705	760	787	557
65°	413	455	548	621	650	410
75°	195	266	371	434	447	209
85°	38	78	96	103	107	47
90°	0	0	0	0	0	



TEST NUMBER: P391462

CATALOG NUMBER: 24CZ2-55VHE-HRP-UNV-L930-CD1-SWPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1211.5	1211.5	1211.5	1211.5	1211.5
2.5°	1213.4	1213.4	1207.7	1211.5	1211.5
5°	1211.5	1209.6	1203.9	1209.6	1209.6
7.5°	1205.8	1203.9	1200.0	1205.8	1203.9
10°	1194.3	1194.3	1190.5	1196.2	1196.2
12.5°	1184.7	1182.8	1180.9	1188.6	1186.7
15°	1169.5	1169.5	1167.6	1177.1	1175.2
17.5°	1150.4	1152.3	1154.2	1161.8	1163.7
20°	1129.3	1133.2	1135.1	1146.5	1146.5
22.5°	1110.2	1112.1	1116.0	1127.4	1127.4
25°	1085.4	1089.2	1096.8	1106.4	1108.3
27.5°	1060.5	1062.5	1072.0	1085.4	1087.3
30°	1028.1	1033.8	1045.3	1060.5	1062.5
32.5°	999.4	1005.1	1018.5	1033.8	1037.6
35°	963.1	970.7	986.0	1005.1	1008.9
37.5°	930.6	936.3	955.4	976.5	982.2
40°	890.5	901.9	921.0	945.9	955.4
42.5°	850.3	861.8	884.7	917.2	928.7
45°	808.3	821.7	850.3	886.7	901.9
47.5°	766.3	781.6	814.0	856.1	873.3
50°	718.5	737.6	777.7	825.5	844.6
52.5°	672.6	695.6	739.5	793.0	817.9
55°	624.9	647.8	705.1	760.5	787.3
57.5°	571.4	601.9	665.0	728.0	756.7
60°	521.7	550.3	626.8	695.6	724.2
62.5°	468.2	506.4	588.6	661.2	689.8
65°	412.8	454.8	548.4	621.0	649.7
67.5°	363.1	408.9	508.3	580.9	609.6
70°	303.8	361.2	464.3	537.0	565.6
72.5°	248.4	311.5	418.5	489.2	515.9
75°	194.9	265.6	370.7	433.8	447.1
77.5°	145.2	219.8	321.0	347.8	338.2
80°	103.2	175.8	250.3	236.9	242.7
82.5°	66.9	133.8	154.8	175.8	181.5
85°	38.2	78.3	95.5	103.2	107.0
87.5°	17.2	28.7	38.2	38.2	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)