

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: P391543

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L950-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: P391543
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: 24CZ2-60VHE-RDP-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3646.6 lumens
Efficiency: N/A
Efficacy: 94.2 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

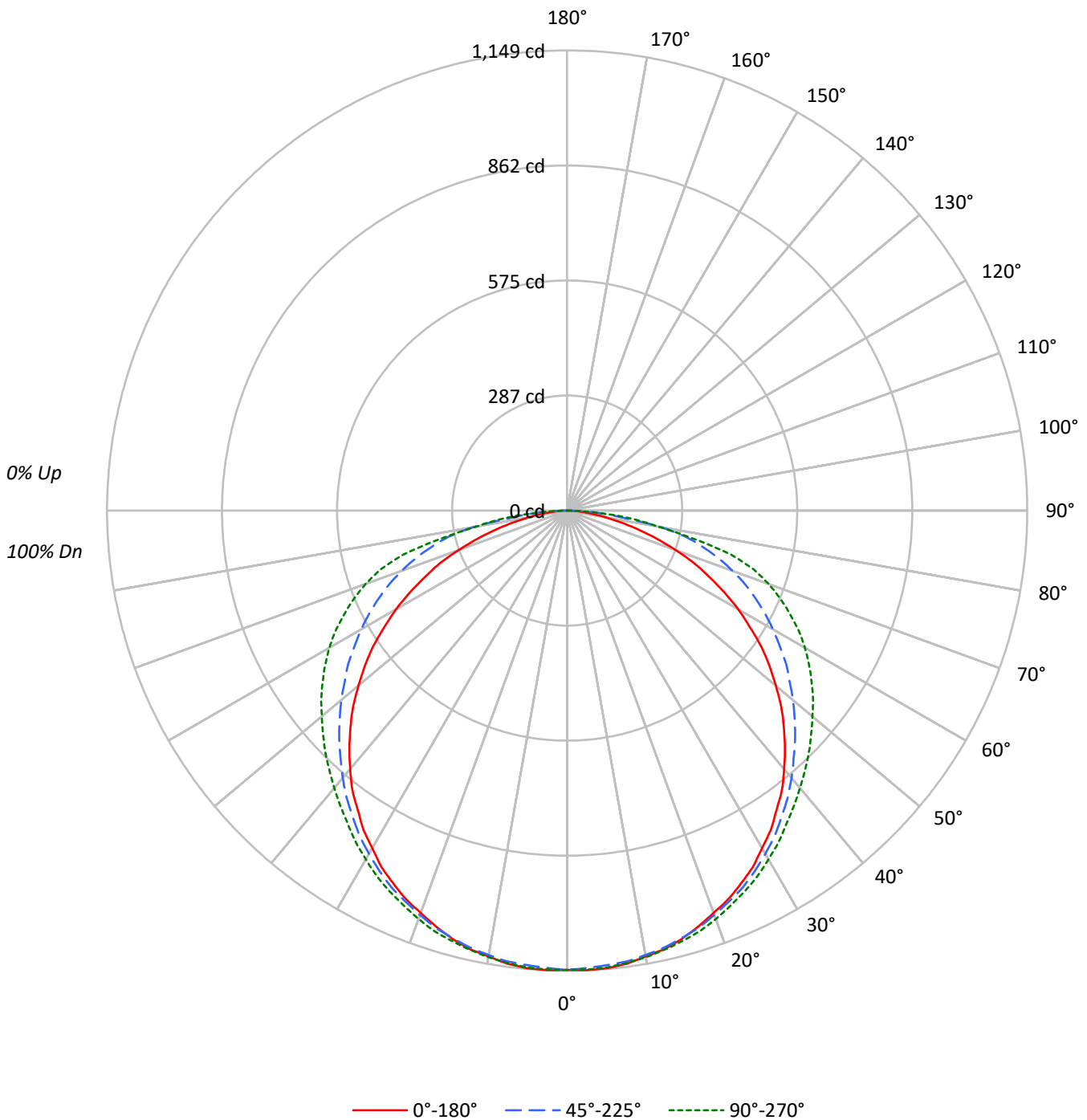
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P391543

CATALOG NUMBER: 24CZ2-60VHE-RDP-UNV-L950-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P391543

CATALOG NUMBER: 24CZ2-60VHE-RDP-UNV-L950-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°	1543	1543	1543
5°	1549	1539	1546
10°	1545	1540	1547
15°	1542	1539	1550
20°	1531	1538	1554
25°	1525	1541	1557
30°	1512	1537	1562
35°	1497	1533	1569
40°	1480	1531	1588
45°	1456	1532	1624
50°	1424	1541	1674
55°	1388	1566	1748
60°	1329	1597	1845
65°	1244	1653	1958
70°	1131	1729	2106
75°	959	1824	2200
80°	757	1836	1780
85°	559	1396	1564



TEST NUMBER: P391543

CATALOG NUMBER: 24CZ2-60VHE-RDP-UNV-L950-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.8	3.0
10°-20°	313.1	8.6
20°-30°	478.8	13.1
30°-40°	585.3	16.0
40°-50°	623.8	17.1
50°-60°	596.4	16.4
60°-70°	505.2	13.9
70°-80°	339.6	9.3
80°-90°	95.8	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°	900.6	24.7
0°-40°	1485.9	40.7
0°-60°	2706.0	74.2
0°-90°	3646.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3646.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1147	1145	1140	1145	1145	109
15°	1107	1107	1105	1114	1112	312
25°	1027	1031	1038	1047	1049	474
35°	912	919	933	951	955	571
45°	765	778	805	839	854	590
55°	592	613	667	720	745	527
65°	391	430	519	588	615	388
75°	184	251	351	411	423	198
85°	36	74	90	98	101	45
90°	0	0	0	0	0	



TEST NUMBER: P391543

CATALOG NUMBER: 24CZ2-60VHE-RDP-UNV-L950-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1146.8	1146.8	1146.8	1146.8	1146.8
2.5°	1148.6	1148.6	1143.1	1146.8	1146.8
5°	1146.8	1144.9	1139.5	1144.9	1144.9
7.5°	1141.3	1139.5	1135.9	1141.3	1139.5
10°	1130.5	1130.5	1126.9	1132.3	1132.3
12.5°	1121.4	1119.6	1117.8	1125.0	1123.2
15°	1107.0	1107.0	1105.2	1114.2	1112.4
17.5°	1088.9	1090.7	1092.5	1099.7	1101.5
20°	1069.0	1072.6	1074.4	1085.3	1085.3
22.5°	1050.9	1052.7	1056.3	1067.2	1067.2
25°	1027.4	1031.0	1038.2	1047.3	1049.1
27.5°	1003.9	1005.7	1014.7	1027.4	1029.2
30°	973.1	978.5	989.4	1003.9	1005.7
32.5°	946.0	951.4	964.1	978.5	982.2
35°	911.6	918.8	933.3	951.4	955.0
37.5°	880.9	886.3	904.4	924.3	929.7
40°	842.9	853.7	871.8	895.3	904.4
42.5°	804.9	815.7	837.5	868.2	879.1
45°	765.1	777.8	804.9	839.3	853.7
47.5°	725.3	739.8	770.5	810.3	826.6
50°	680.1	698.2	736.2	781.4	799.5
52.5°	636.7	658.4	700.0	750.6	774.1
55°	591.5	613.2	667.4	719.9	745.2
57.5°	540.8	569.8	629.4	689.1	716.3
60°	493.8	520.9	593.3	658.4	685.5
62.5°	443.1	479.3	557.1	625.8	653.0
65°	390.7	430.5	519.1	587.8	615.0
67.5°	343.7	387.1	481.1	549.9	577.0
70°	287.6	341.9	439.5	508.3	535.4
72.5°	235.1	294.8	396.1	463.0	488.4
75°	184.5	251.4	350.9	410.6	423.2
77.5°	137.5	208.0	303.9	329.2	320.1
80°	97.7	166.4	236.9	224.3	229.7
82.5°	63.3	126.6	146.5	166.4	171.8
85°	36.2	74.2	90.4	97.7	101.3
87.5°	16.3	27.1	36.2	36.2	34.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)