

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: P391463

Luminaire Tested: **24CZ2-55VHE-HRP-UNV-L930-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: P391463
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-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: 3900.9 lumens
Efficiency: N/A
Efficacy: 108.1 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

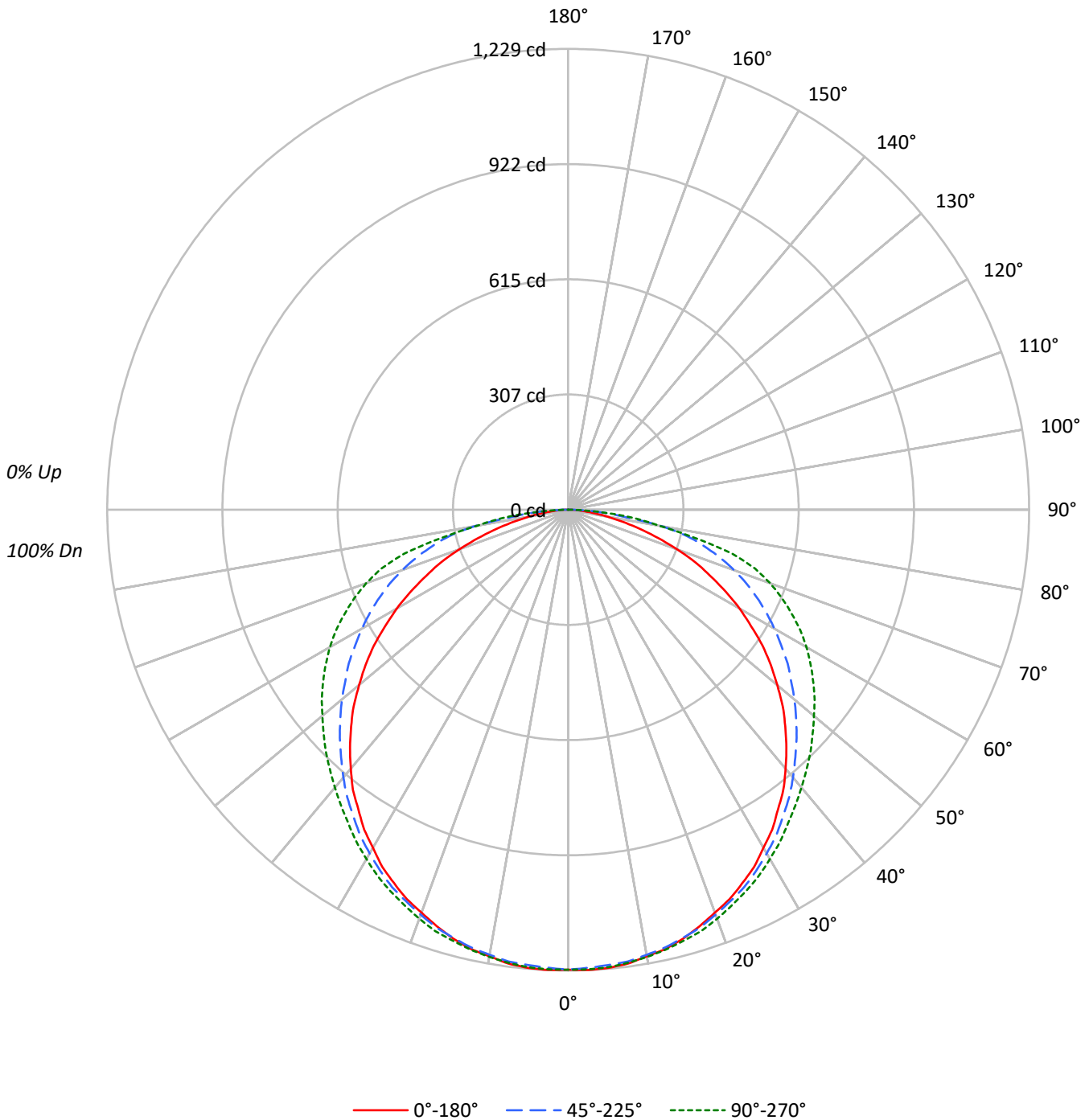
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1651	1651	1651
5°	1657	1646	1654
10°	1652	1647	1655
15°	1650	1647	1658
20°	1637	1646	1662
25°	1632	1649	1666
30°	1617	1644	1671
35°	1602	1640	1678
40°	1584	1638	1699
45°	1557	1638	1738
50°	1523	1648	1790
55°	1484	1675	1870
60°	1421	1708	1973
65°	1330	1768	2095
70°	1210	1850	2253
75°	1026	1952	2354
80°	810	1964	1904
85°	597	1493	1673



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.4	3.0
10°-20°	334.9	8.6
20°-30°	512.1	13.1
30°-40°	626.1	16.0
40°-50°	667.3	17.1
50°-60°	638.0	16.4
60°-70°	540.5	13.9
70°-80°	363.2	9.3
80°-90°	102.5	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°	963.4	24.7
0°-40°	1589.5	40.7
0°-60°	2894.7	74.2
0°-90°	3900.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3900.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1227	1225	1219	1225	1225	117
15°	1184	1184	1182	1192	1190	334
25°	1099	1103	1111	1120	1122	507
35°	975	983	998	1018	1022	611
45°	818	832	861	898	913	631
55°	633	656	714	770	797	564
65°	418	460	555	629	658	415
75°	197	269	375	439	453	211
85°	39	79	97	104	108	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1226.7	1226.7	1226.7	1226.7	1226.7
2.5°	1228.7	1228.7	1222.9	1226.7	1226.7
5°	1226.7	1224.8	1219.0	1224.8	1224.8
7.5°	1220.9	1219.0	1215.1	1220.9	1219.0
10°	1209.3	1209.3	1205.4	1211.2	1211.2
12.5°	1199.6	1197.7	1195.8	1203.5	1201.6
15°	1184.2	1184.2	1182.2	1191.9	1190.0
17.5°	1164.8	1166.7	1168.7	1176.4	1178.3
20°	1143.5	1147.4	1149.3	1160.9	1160.9
22.5°	1124.2	1126.1	1130.0	1141.6	1141.6
25°	1099.0	1102.9	1110.6	1120.3	1122.2
27.5°	1073.9	1075.8	1085.5	1099.0	1101.0
30°	1041.0	1046.8	1058.4	1073.9	1075.8
32.5°	1011.9	1017.8	1031.3	1046.8	1050.6
35°	975.2	982.9	998.4	1017.8	1021.6
37.5°	942.3	948.1	967.4	988.7	994.5
40°	901.7	913.3	932.6	957.8	967.4
42.5°	861.0	872.6	895.9	928.7	940.4
45°	818.5	832.0	861.0	897.8	913.3
47.5°	775.9	791.4	824.3	866.8	884.2
50°	727.5	746.9	787.5	835.9	855.2
52.5°	681.1	704.3	748.8	803.0	828.1
55°	632.7	655.9	714.0	770.1	797.2
57.5°	578.5	609.5	673.3	737.2	766.2
60°	528.2	557.2	634.6	704.3	733.3
62.5°	474.0	512.7	595.9	669.5	698.5
65°	417.9	460.5	555.3	628.8	657.9
67.5°	367.6	414.1	514.7	588.2	617.2
70°	307.6	365.7	470.2	543.7	572.7
72.5°	251.5	315.4	423.7	495.3	522.4
75°	197.4	269.0	375.4	439.2	452.8
77.5°	147.1	222.5	325.1	352.2	342.5
80°	104.5	178.0	253.5	239.9	245.7
82.5°	67.7	135.4	156.7	178.0	183.8
85°	38.7	79.3	96.7	104.5	108.4
87.5°	17.4	29.0	38.7	38.7	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)