

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: P390511

Luminaire Tested: **22CZ2-60VHE-HRP-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: P390511
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: 22CZ2-60VHE-HRP-UNV-L950-CD1-SWPD1-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: 4644.2 lumens
Efficiency: N/A
Efficacy: 105.3 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

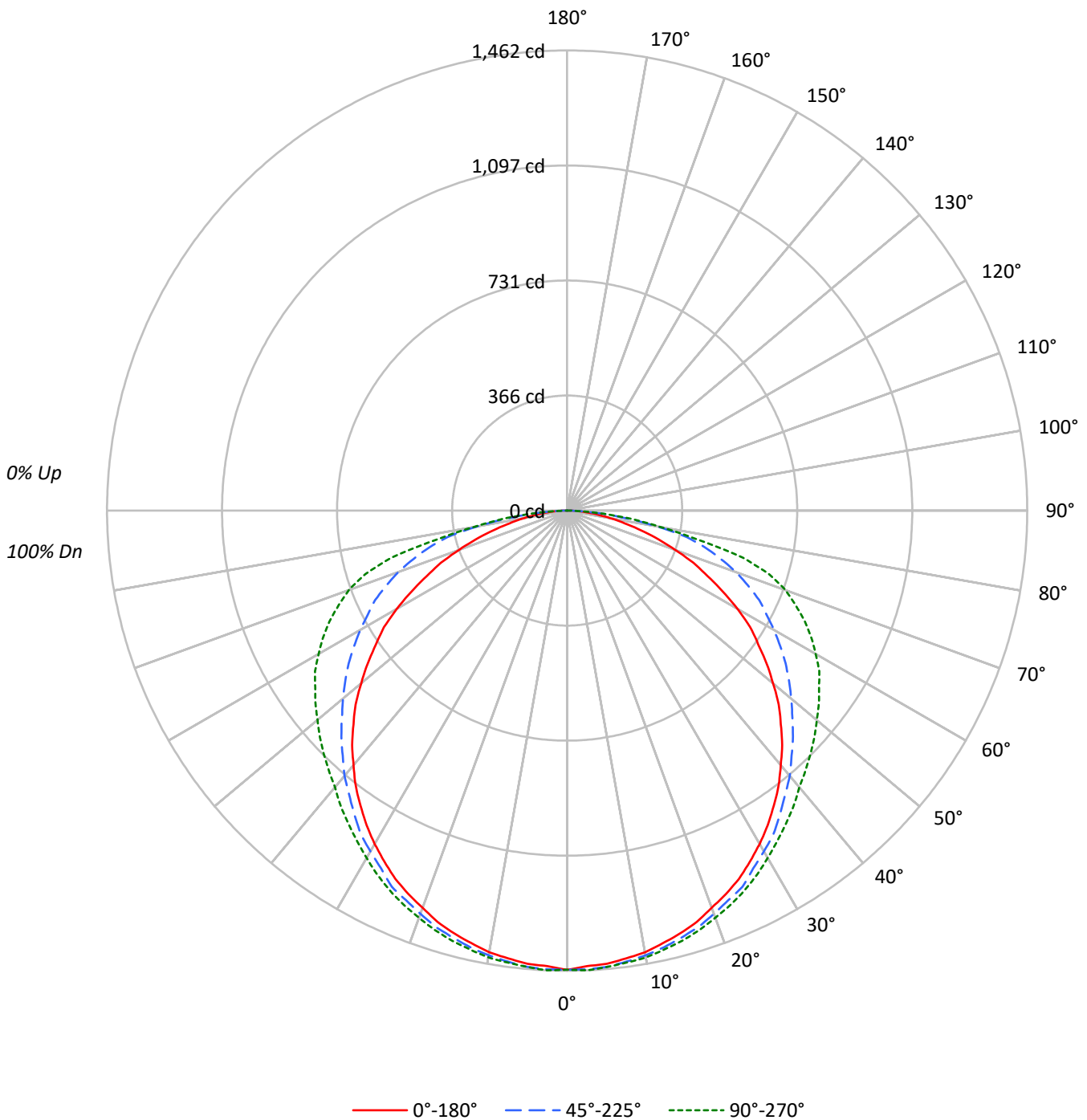
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	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°	3926	3926	3926
5°	3904	3931	3931
10°	3893	3921	3939
15°	3874	3912	3940
20°	3845	3904	3943
25°	3834	3915	3956
30°	3801	3885	3960
35°	3760	3872	3984
40°	3708	3864	4032
45°	3653	3862	4161
50°	3576	3890	4334
55°	3478	3975	4584
60°	3365	4082	4909
65°	3133	4285	5308
70°	2877	4489	5807
75°	2522	4724	6003
80°	2171	4500	4713
85°	1899	3270	3588



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	3.0
10°-20°	396.2	8.5
20°-30°	604.5	13.0
30°-40°	738.1	15.9
40°-50°	789.2	17.0
50°-60°	761.8	16.4
60°-70°	655.7	14.1
70°-80°	443.7	9.6
80°-90°	117.1	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°	1138.7	24.5
0°-40°	1876.8	40.4
0°-60°	3427.8	73.8
0°-90°	4644.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4644.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1459	1459	1459	1459	1459	
5°	1445	1449	1455	1455	1455	137
15°	1390	1394	1404	1411	1414	392
25°	1291	1298	1319	1326	1332	594
35°	1144	1155	1179	1203	1213	716
45°	960	977	1015	1066	1093	741
55°	741	765	847	933	977	664
65°	492	540	673	779	834	489
75°	243	321	454	547	577	260
85°	62	85	106	109	116	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1458.8	1458.8	1458.8	1458.8	1458.8
2.5°	1448.6	1452.0	1458.8	1458.8	1462.2
5°	1445.2	1448.6	1455.4	1455.4	1455.4
7.5°	1434.9	1438.3	1445.2	1448.6	1448.6
10°	1424.7	1428.1	1434.9	1438.3	1441.7
12.5°	1407.6	1411.0	1421.2	1428.1	1428.1
15°	1390.5	1393.9	1404.2	1411.0	1414.4
17.5°	1370.0	1376.8	1387.1	1393.9	1397.3
20°	1342.7	1349.5	1363.2	1373.4	1376.8
22.5°	1318.7	1325.6	1339.2	1349.5	1356.3
25°	1291.4	1298.3	1318.7	1325.6	1332.4
27.5°	1257.3	1264.1	1281.2	1294.8	1305.1
30°	1223.1	1229.9	1250.4	1267.5	1274.3
32.5°	1185.5	1195.8	1219.7	1233.3	1243.6
35°	1144.5	1154.8	1178.7	1202.6	1212.8
37.5°	1103.5	1113.8	1137.7	1168.4	1182.1
40°	1055.7	1069.3	1100.1	1141.1	1147.9
42.5°	1011.3	1028.4	1055.7	1103.5	1120.6
45°	960.0	977.1	1014.7	1065.9	1093.3
47.5°	912.2	929.3	970.3	1031.8	1065.9
50°	854.1	878.0	929.3	1001.0	1035.2
52.5°	799.4	819.9	888.3	966.9	1007.9
55°	741.4	765.3	847.3	932.7	977.1
57.5°	690.1	710.6	802.9	898.5	949.8
60°	625.2	652.5	758.5	860.9	912.2
62.5°	556.9	597.9	714.0	819.9	874.6
65°	492.0	539.8	673.0	779.0	833.6
67.5°	433.9	485.1	621.8	734.5	785.8
70°	365.6	430.5	570.5	679.9	738.0
72.5°	304.1	375.8	512.5	621.8	673.0
75°	242.6	321.1	454.4	546.6	577.4
77.5°	187.9	263.1	389.5	416.8	420.2
80°	140.1	208.4	290.4	293.8	304.1
82.5°	95.7	146.9	187.9	205.0	208.4
85°	61.5	85.4	105.9	109.3	116.2
87.5°	27.3	30.7	37.6	34.2	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)