

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: P390512

Luminaire Tested: **22CZ2-60VHE-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: P390512
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-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: 4702.5 lumens
Efficiency: N/A
Efficacy: 106.6 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

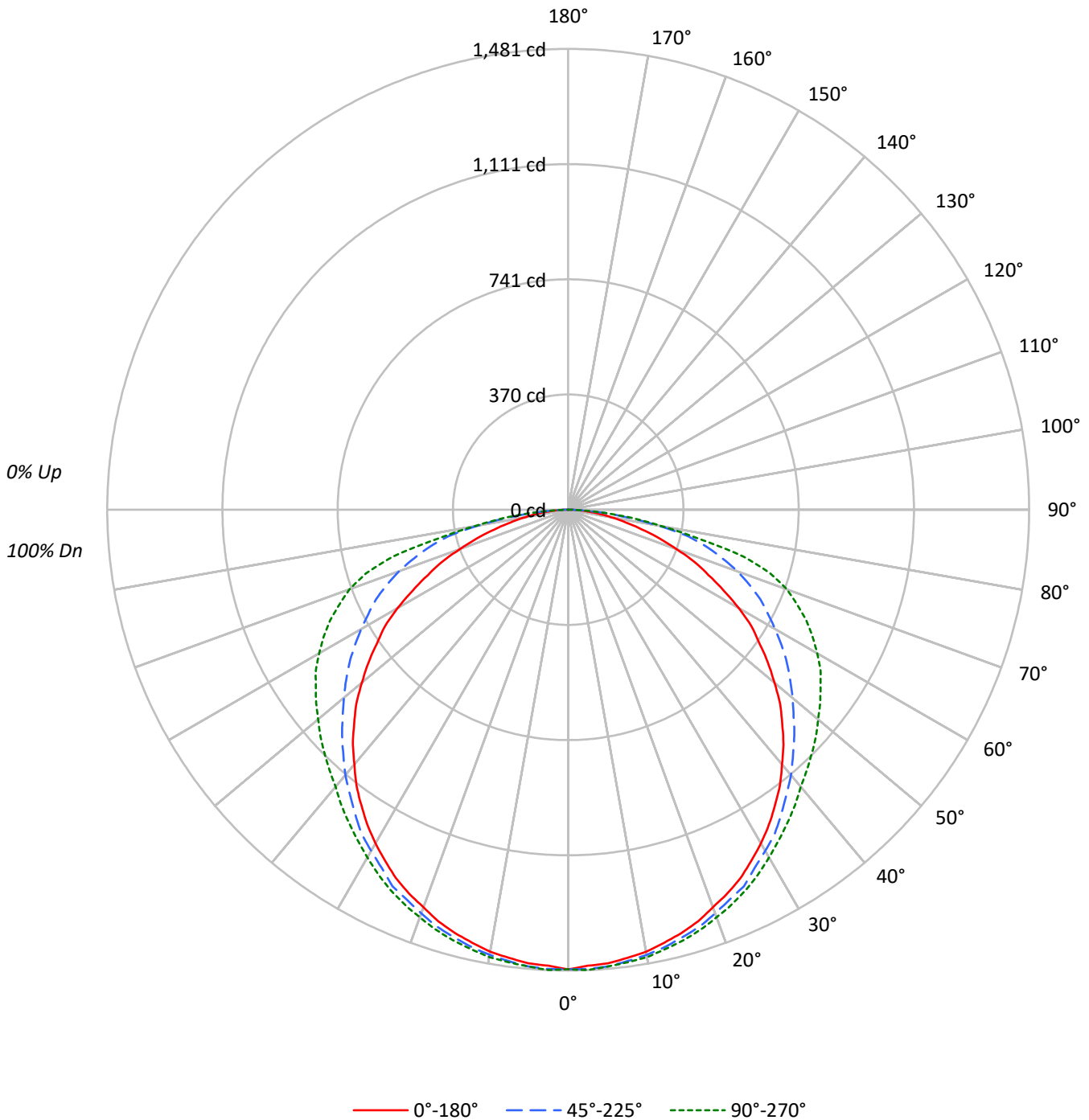
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3975	3975	3975
5°	3953	3981	3981
10°	3942	3970	3989
15°	3923	3961	3990
20°	3893	3953	3992
25°	3882	3965	4006
30°	3848	3934	4009
35°	3807	3921	4034
40°	3755	3913	4083
45°	3699	3910	4213
50°	3620	3939	4388
55°	3522	4025	4642
60°	3407	4133	4971
65°	3172	4339	5375
70°	2912	4545	5879
75°	2554	4784	6078
80°	2197	4556	4771
85°	1924	3310	3631



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.7	3.0
10°-20°	401.2	8.5
20°-30°	612.1	13.0
30°-40°	747.4	15.9
40°-50°	799.1	17.0
50°-60°	771.3	16.4
60°-70°	664.0	14.1
70°-80°	449.2	9.6
80°-90°	118.5	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°	1153.0	24.5
0°-40°	1900.4	40.4
0°-60°	3470.8	73.8
0°-90°	4702.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4702.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1477	1477	1477	1477	1477	
5°	1463	1467	1474	1474	1474	139
15°	1408	1411	1422	1429	1432	397
25°	1308	1314	1335	1342	1349	602
35°	1159	1169	1194	1218	1228	725
45°	972	989	1027	1079	1107	750
55°	751	775	858	944	989	673
65°	498	547	682	789	844	495
75°	246	325	460	554	585	264
85°	62	86	107	111	118	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1477.1	1477.1	1477.1	1477.1	1477.1
2.5°	1466.8	1470.2	1477.1	1477.1	1480.6
5°	1463.3	1466.8	1473.7	1473.7	1473.7
7.5°	1452.9	1456.4	1463.3	1466.8	1466.8
10°	1442.5	1446.0	1452.9	1456.4	1459.8
12.5°	1425.2	1428.7	1439.1	1446.0	1446.0
15°	1408.0	1411.4	1421.8	1428.7	1432.2
17.5°	1387.2	1394.1	1404.5	1411.4	1414.9
20°	1359.5	1366.4	1380.3	1390.7	1394.1
22.5°	1335.3	1342.2	1356.1	1366.4	1373.4
25°	1307.6	1314.5	1335.3	1342.2	1349.1
27.5°	1273.0	1280.0	1297.3	1311.1	1321.5
30°	1238.4	1245.4	1266.1	1283.4	1290.3
32.5°	1200.4	1210.8	1235.0	1248.8	1259.2
35°	1158.9	1169.3	1193.5	1217.7	1228.1
37.5°	1117.4	1127.7	1152.0	1183.1	1196.9
40°	1068.9	1082.8	1113.9	1155.4	1162.3
42.5°	1024.0	1041.3	1068.9	1117.4	1134.7
45°	972.1	989.4	1027.4	1079.3	1107.0
47.5°	923.6	940.9	982.5	1044.7	1079.3
50°	864.8	889.0	940.9	1013.6	1048.2
52.5°	809.5	830.2	899.4	979.0	1020.5
55°	750.7	774.9	857.9	944.4	989.4
57.5°	698.8	719.5	812.9	909.8	961.7
60°	633.1	660.7	768.0	871.8	923.6
62.5°	563.9	605.4	723.0	830.2	885.6
65°	498.1	546.6	681.5	788.7	844.1
67.5°	439.3	491.2	629.6	743.8	795.6
70°	370.1	435.9	577.7	688.4	747.2
72.5°	307.9	380.5	518.9	629.6	681.5
75°	245.6	325.2	460.1	553.5	584.6
77.5°	190.3	266.4	394.4	422.0	425.5
80°	141.8	211.0	294.0	297.5	307.9
82.5°	96.9	148.8	190.3	207.6	211.0
85°	62.3	86.5	107.2	110.7	117.6
87.5°	27.7	31.1	38.1	34.6	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)