

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: P390597

Luminaire Tested: **22CZ2-70VHE-HRP-UNV-L930-CD1-SDWPD1-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: P390597
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: 22CZ2-70VHE-HRP-UNV-L930-CD1-SDWPD1-U
Description: 2x2 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: 4794.8 lumens
Efficiency: N/A
Efficacy: 95.3 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

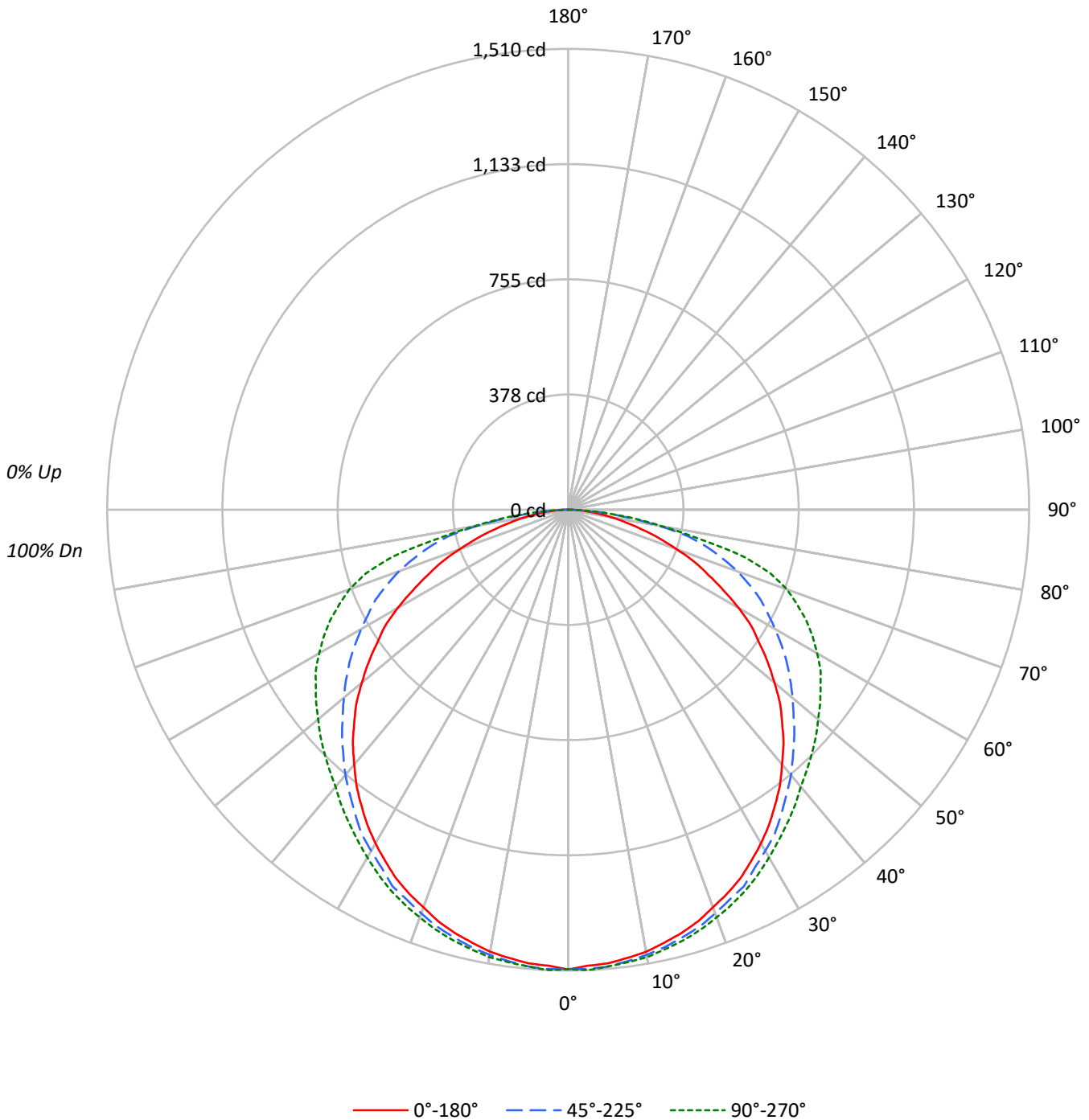
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82					82			
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67					67			
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55					55			
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35					35			
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31					31			
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27					27			
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4053	4053	4053
5°	4030	4059	4059
10°	4019	4048	4067
15°	3999	4039	4068
20°	3970	4030	4071
25°	3959	4043	4084
30°	3924	4011	4088
35°	3882	3998	4114
40°	3829	3990	4163
45°	3772	3987	4295
50°	3692	4016	4474
55°	3591	4104	4733
60°	3474	4214	5069
65°	3234	4425	5480
70°	2969	4634	5995
75°	2603	4877	6198
80°	2241	4646	4864
85°	1961	3375	3702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	3.0
10°-20°	409.1	8.5
20°-30°	624.1	13.0
30°-40°	762.0	15.9
40°-50°	814.8	17.0
50°-60°	786.5	16.4
60°-70°	677.0	14.1
70°-80°	458.0	9.6
80°-90°	120.9	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°	1175.6	24.5
0°-40°	1937.7	40.4
0°-60°	3538.9	73.8
0°-90°	4794.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4794.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1492	1496	1503	1503	1503	142
15°	1436	1439	1450	1457	1460	405
25°	1333	1340	1362	1369	1376	614
35°	1182	1192	1217	1242	1252	739
45°	991	1009	1048	1100	1129	765
55°	765	790	875	963	1009	686
65°	508	557	695	804	861	505
75°	250	332	469	564	596	269
85°	64	88	109	113	120	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1506.1	1506.1	1506.1	1506.1	1506.1
2.5°	1495.5	1499.1	1506.1	1506.1	1509.7
5°	1492.0	1495.5	1502.6	1502.6	1502.6
7.5°	1481.4	1485.0	1492.0	1495.5	1495.5
10°	1470.9	1474.4	1481.4	1485.0	1488.5
12.5°	1453.2	1456.7	1467.3	1474.4	1474.4
15°	1435.6	1439.1	1449.7	1456.7	1460.3
17.5°	1414.4	1421.5	1432.1	1439.1	1442.6
20°	1386.2	1393.3	1407.4	1417.9	1421.5
22.5°	1361.5	1368.6	1382.7	1393.3	1400.3
25°	1333.3	1340.4	1361.5	1368.6	1375.6
27.5°	1298.0	1305.1	1322.7	1336.8	1347.4
30°	1262.8	1269.8	1291.0	1308.6	1315.7
32.5°	1224.0	1234.5	1259.2	1273.3	1283.9
35°	1181.6	1192.2	1216.9	1241.6	1252.2
37.5°	1139.3	1149.9	1174.6	1206.3	1220.4
40°	1089.9	1104.0	1135.8	1178.1	1185.2
42.5°	1044.1	1061.7	1089.9	1139.3	1156.9
45°	991.2	1008.8	1047.6	1100.5	1128.7
47.5°	941.8	959.4	1001.7	1065.2	1100.5
50°	881.8	906.5	959.4	1033.5	1068.8
52.5°	825.4	846.5	917.1	998.2	1040.5
55°	765.4	790.1	874.8	962.9	1008.8
57.5°	712.5	733.7	828.9	927.7	980.6
60°	645.5	673.7	783.0	888.9	941.8
62.5°	574.9	617.3	737.2	846.5	903.0
65°	507.9	557.3	694.9	804.2	860.6
67.5°	448.0	500.9	642.0	758.4	811.3
70°	377.4	444.4	589.0	701.9	761.9
72.5°	313.9	388.0	529.1	642.0	694.9
75°	250.4	331.6	469.1	564.4	596.1
77.5°	194.0	271.6	402.1	430.3	433.9
80°	144.6	215.2	299.8	303.3	313.9
82.5°	98.8	151.7	194.0	211.6	215.2
85°	63.5	88.2	109.3	112.9	119.9
87.5°	28.2	31.7	38.8	35.3	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)