

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: P390556

Luminaire Tested: **22CZ2-65VHE-HRP-UNV-L940-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: P390556
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: 22CZ2-65VHE-HRP-UNV-L940-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4696.9 lumens
Efficiency: N/A
Efficacy: 98.1 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

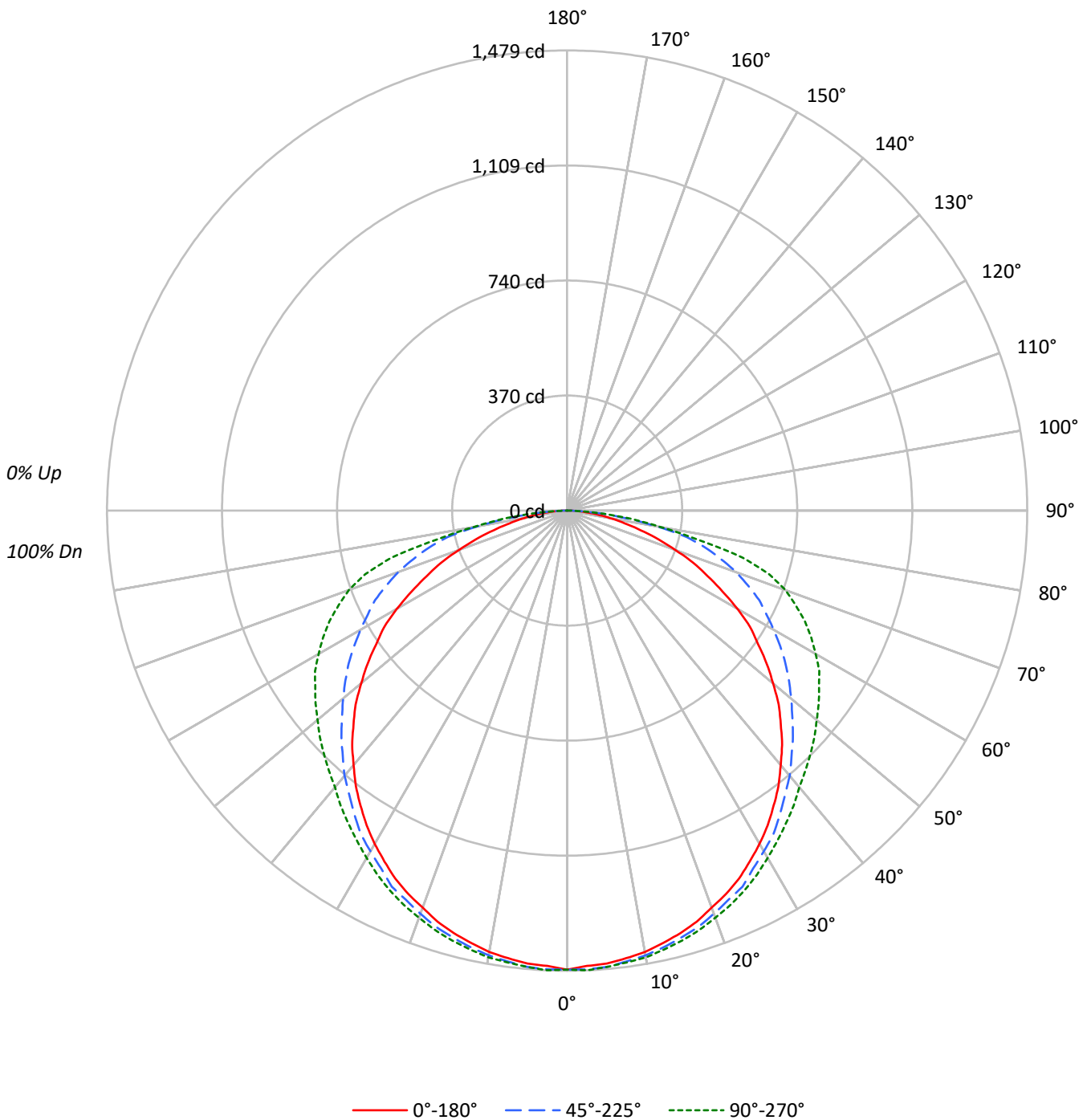
Input Watts (W): 47.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3970	3970	3970
5°	3948	3976	3976
10°	3937	3965	3984
15°	3918	3956	3985
20°	3889	3948	3988
25°	3878	3960	4001
30°	3844	3929	4005
35°	3802	3916	4029
40°	3751	3908	4078
45°	3695	3905	4208
50°	3616	3934	4383
55°	3518	4020	4636
60°	3403	4128	4965
65°	3168	4334	5368
70°	2909	4540	5872
75°	2550	4777	6071
80°	2196	4551	4765
85°	1920	3307	3628



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.6	3.0
10°-20°	400.7	8.5
20°-30°	611.3	13.0
30°-40°	746.5	15.9
40°-50°	798.1	17.0
50°-60°	770.4	16.4
60°-70°	663.2	14.1
70°-80°	448.7	9.6
80°-90°	118.4	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°	1151.6	24.5
0°-40°	1898.1	40.4
0°-60°	3466.6	73.8
0°-90°	4696.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4696.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1475	1475	1475	1475	1475	
5°	1462	1465	1472	1472	1472	139
15°	1406	1410	1420	1427	1430	397
25°	1306	1313	1334	1341	1348	601
35°	1158	1168	1192	1216	1227	724
45°	971	988	1026	1078	1106	749
55°	750	774	857	943	988	672
65°	498	546	681	788	843	495
75°	245	325	460	553	584	263
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°	1475.4	1475.4	1475.4	1475.4	1475.4
2.5°	1465.0	1468.5	1475.4	1475.4	1478.8
5°	1461.6	1465.0	1471.9	1471.9	1471.9
7.5°	1451.2	1454.6	1461.6	1465.0	1465.0
10°	1440.8	1444.3	1451.2	1454.6	1458.1
12.5°	1423.5	1427.0	1437.4	1444.3	1444.3
15°	1406.3	1409.7	1420.1	1427.0	1430.5
17.5°	1385.5	1392.5	1402.8	1409.7	1413.2
20°	1357.9	1364.8	1378.6	1389.0	1392.5
22.5°	1333.7	1340.6	1354.4	1364.8	1371.7
25°	1306.1	1313.0	1333.7	1340.6	1347.5
27.5°	1271.5	1278.4	1295.7	1309.5	1319.9
30°	1237.0	1243.9	1264.6	1281.9	1288.8
32.5°	1199.0	1209.3	1233.5	1247.3	1257.7
35°	1157.5	1167.9	1192.1	1216.2	1226.6
37.5°	1116.0	1126.4	1150.6	1181.7	1195.5
40°	1067.7	1081.5	1112.6	1154.0	1161.0
42.5°	1022.7	1040.0	1067.7	1116.0	1133.3
45°	970.9	988.2	1026.2	1078.0	1105.7
47.5°	922.5	939.8	981.3	1043.5	1078.0
50°	863.8	888.0	939.8	1012.4	1046.9
52.5°	808.5	829.3	898.4	977.8	1019.3
55°	749.8	774.0	856.9	943.3	988.2
57.5°	698.0	718.7	812.0	908.7	960.6
60°	632.3	659.9	767.1	870.7	922.5
62.5°	563.2	604.7	722.1	829.3	884.5
65°	497.6	545.9	680.7	787.8	843.1
67.5°	438.8	490.6	628.8	742.9	794.7
70°	369.7	435.4	577.0	687.6	746.3
72.5°	307.5	380.1	518.3	628.8	680.7
75°	245.3	324.8	459.5	552.8	583.9
77.5°	190.0	266.1	393.9	421.5	425.0
80°	141.7	210.8	293.7	297.1	307.5
82.5°	96.7	148.6	190.0	207.3	210.8
85°	62.2	86.4	107.1	110.6	117.5
87.5°	27.6	31.1	38.0	34.6	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)