

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: P390553

Luminaire Tested: **22CZ2-65VHE-HRP-UNV-L935-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: P390553
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-L935-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4648.8 lumens
Efficiency: N/A
Efficacy: 97.1 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

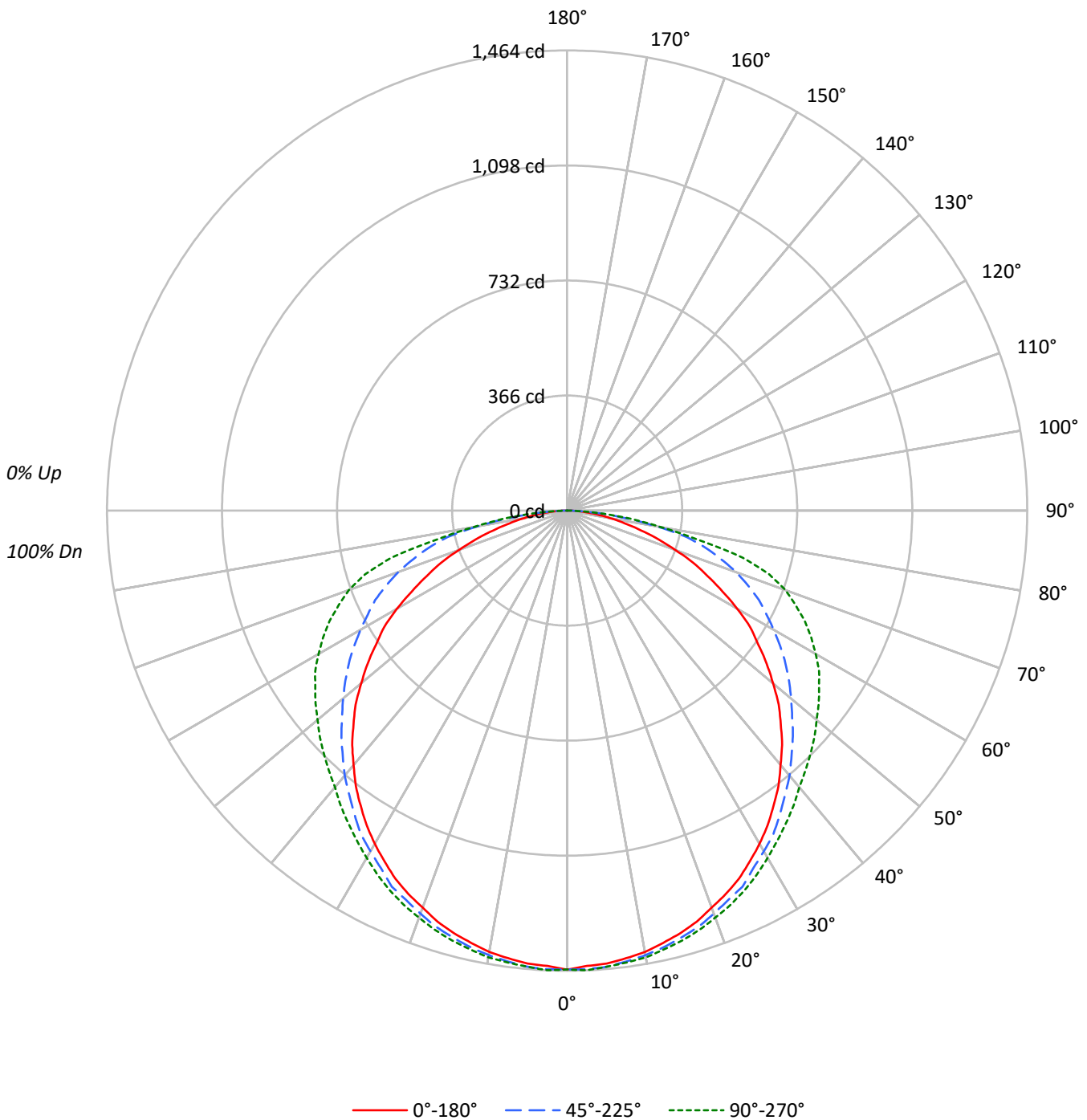
Input Watts (W): 47.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3930	3930	3930
5°	3908	3935	3935
10°	3897	3925	3944
15°	3878	3916	3944
20°	3849	3907	3947
25°	3838	3920	3960
30°	3804	3889	3964
35°	3763	3876	3988
40°	3712	3868	4037
45°	3657	3865	4164
50°	3579	3894	4338
55°	3482	3979	4589
60°	3368	4086	4914
65°	3136	4290	5313
70°	2879	4493	5812
75°	2524	4729	6010
80°	2173	4505	4717
85°	1902	3273	3591



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.1	3.0
10°-20°	396.6	8.5
20°-30°	605.1	13.0
30°-40°	738.8	15.9
40°-50°	790.0	17.0
50°-60°	762.5	16.4
60°-70°	656.4	14.1
70°-80°	444.1	9.6
80°-90°	117.2	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°	1139.8	24.5
0°-40°	1878.7	40.4
0°-60°	3431.1	73.8
0°-90°	4648.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4648.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1460	1460	1460	1460	1460	
5°	1447	1450	1457	1457	1457	137
15°	1392	1395	1406	1412	1416	393
25°	1293	1300	1320	1327	1334	595
35°	1146	1156	1180	1204	1214	717
45°	961	978	1016	1067	1094	742
55°	742	766	848	934	978	665
65°	492	540	674	780	834	490
75°	243	322	455	547	578	261
85°	62	86	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°	1460.3	1460.3	1460.3	1460.3	1460.3
2.5°	1450.0	1453.4	1460.3	1460.3	1463.7
5°	1446.6	1450.0	1456.8	1456.8	1456.8
7.5°	1436.3	1439.8	1446.6	1450.0	1450.0
10°	1426.1	1429.5	1436.3	1439.8	1443.2
12.5°	1409.0	1412.4	1422.7	1429.5	1429.5
15°	1391.9	1395.3	1405.6	1412.4	1415.8
17.5°	1371.4	1378.2	1388.5	1395.3	1398.7
20°	1344.0	1350.8	1364.5	1374.8	1378.2
22.5°	1320.1	1326.9	1340.6	1350.8	1357.7
25°	1292.7	1299.5	1320.1	1326.9	1333.7
27.5°	1258.5	1265.3	1282.4	1296.1	1306.4
30°	1224.3	1231.1	1251.7	1268.8	1275.6
32.5°	1186.7	1196.9	1220.9	1234.6	1244.8
35°	1145.6	1155.9	1179.8	1203.8	1214.0
37.5°	1104.6	1114.9	1138.8	1169.6	1183.3
40°	1056.7	1070.4	1101.2	1142.2	1149.1
42.5°	1012.3	1029.4	1056.7	1104.6	1121.7
45°	961.0	978.1	1015.7	1067.0	1094.3
47.5°	913.1	930.2	971.2	1032.8	1067.0
50°	855.0	878.9	930.2	1002.0	1036.2
52.5°	800.2	820.8	889.2	967.8	1008.9
55°	742.1	766.0	848.1	933.6	978.1
57.5°	690.8	711.3	803.7	899.4	950.7
60°	625.8	653.2	759.2	861.8	913.1
62.5°	557.4	598.5	714.7	820.8	875.5
65°	492.5	540.3	673.7	779.7	834.4
67.5°	434.3	485.6	622.4	735.3	786.6
70°	365.9	430.9	571.1	680.5	738.7
72.5°	304.4	376.2	513.0	622.4	673.7
75°	242.8	321.5	454.8	547.2	578.0
77.5°	188.1	263.3	389.9	417.2	420.6
80°	140.2	208.6	290.7	294.1	304.4
82.5°	95.8	147.1	188.1	205.2	208.6
85°	61.6	85.5	106.0	109.4	116.3
87.5°	27.4	30.8	37.6	34.2	34.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)