

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: P390549

Luminaire Tested: **22CZ2-65VHE-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: P390549  
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-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: 4481.9 lumens  
Efficiency: N/A  
Efficacy: 93.6 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

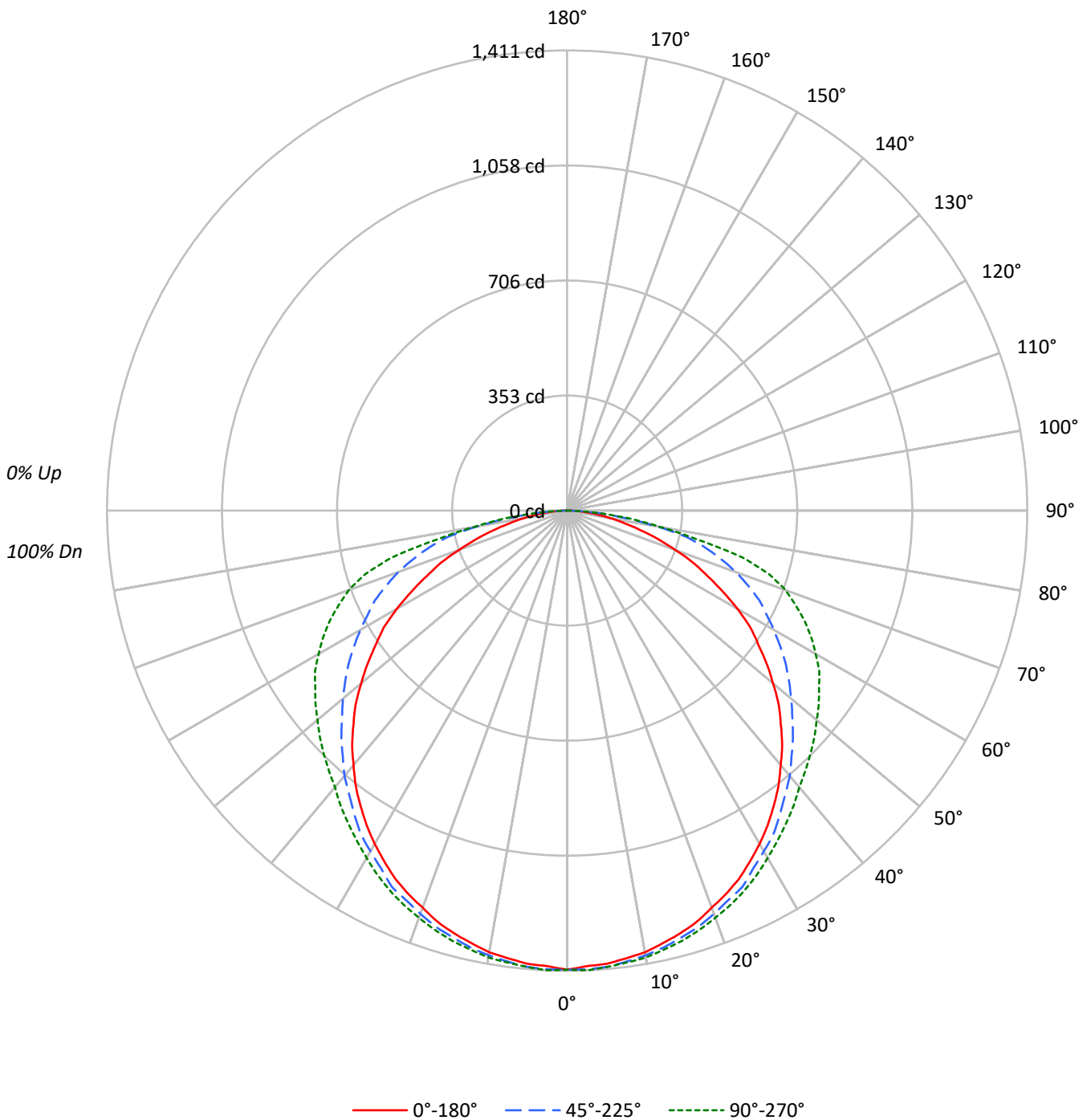
Input Watts (W): 47.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3788	3788	3788
5°	3767	3794	3794
10°	3757	3784	3802
15°	3738	3775	3803
20°	3710	3767	3805
25°	3700	3779	3818
30°	3668	3750	3821
35°	3628	3737	3845
40°	3579	3730	3892
45°	3526	3726	4015
50°	3451	3754	4182
55°	3357	3836	4424
60°	3247	3939	4738
65°	3023	4136	5123
70°	2776	4332	5604
75°	2434	4559	5793
80°	2095	4342	4547
85°	1831	3155	3461



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.2	3.0
10°-20°	382.4	8.5
20°-30°	583.4	13.0
30°-40°	712.3	15.9
40°-50°	761.6	17.0
50°-60°	735.1	16.4
60°-70°	632.8	14.1
70°-80°	428.1	9.6
80°-90°	113.0	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°	1098.9	24.5
0°-40°	1811.2	40.4
0°-60°	3308.0	73.8
0°-90°	4481.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4481.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1408	1408	1408	1408	1408	
5°	1395	1398	1404	1404	1404	132
15°	1342	1345	1355	1362	1365	379
25°	1246	1253	1273	1279	1286	574
35°	1104	1114	1138	1161	1170	691
45°	926	943	979	1029	1055	715
55°	716	738	818	900	943	641
65°	475	521	650	752	804	472
75°	234	310	438	528	557	251
85°	59	82	102	106	112	67
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1407.8	1407.8	1407.8	1407.8	1407.8
2.5°	1398.0	1401.2	1407.8	1407.8	1411.1
5°	1394.7	1398.0	1404.5	1404.5	1404.5
7.5°	1384.8	1388.1	1394.7	1398.0	1398.0
10°	1374.9	1378.2	1384.8	1388.1	1391.4
12.5°	1358.4	1361.7	1371.6	1378.2	1378.2
15°	1341.9	1345.2	1355.1	1361.7	1365.0
17.5°	1322.1	1328.7	1338.6	1345.2	1348.5
20°	1295.7	1302.3	1315.5	1325.4	1328.7
22.5°	1272.7	1279.3	1292.4	1302.3	1308.9
25°	1246.3	1252.9	1272.7	1279.3	1285.9
27.5°	1213.3	1219.9	1236.4	1249.6	1259.5
30°	1180.3	1186.9	1206.7	1223.2	1229.8
32.5°	1144.1	1154.0	1177.0	1190.2	1200.1
35°	1104.5	1114.4	1137.5	1160.6	1170.5
37.5°	1064.9	1074.8	1097.9	1127.6	1140.8
40°	1018.8	1032.0	1061.7	1101.2	1107.8
42.5°	975.9	992.4	1018.8	1064.9	1081.4
45°	926.5	943.0	979.2	1028.7	1055.1
47.5°	880.3	896.8	936.4	995.7	1028.7
50°	824.3	847.3	896.8	966.0	999.0
52.5°	771.5	791.3	857.2	933.1	972.6
55°	715.5	738.5	817.7	900.1	943.0
57.5°	666.0	685.8	774.8	867.1	916.6
60°	603.4	629.7	731.9	830.9	880.3
62.5°	537.4	577.0	689.1	791.3	844.0
65°	474.8	520.9	649.5	751.7	804.5
67.5°	418.7	468.2	600.1	708.9	758.3
70°	352.8	415.4	550.6	656.1	712.2
72.5°	293.4	362.7	494.6	600.1	649.5
75°	234.1	309.9	438.5	527.5	557.2
77.5°	181.3	253.9	375.9	402.2	405.5
80°	135.2	201.1	280.2	283.5	293.4
82.5°	92.3	141.8	181.3	197.8	201.1
85°	59.3	82.4	102.2	105.5	112.1
87.5°	26.4	29.7	36.3	33.0	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)