

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: P390143

Luminaire Tested: **22CZ2-20VHE-RDP-UNV-L930-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: P390143
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: 22CZ2-20VHE-RDP-UNV-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1114.3 lumens
Efficiency: N/A
Efficacy: 78.5 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

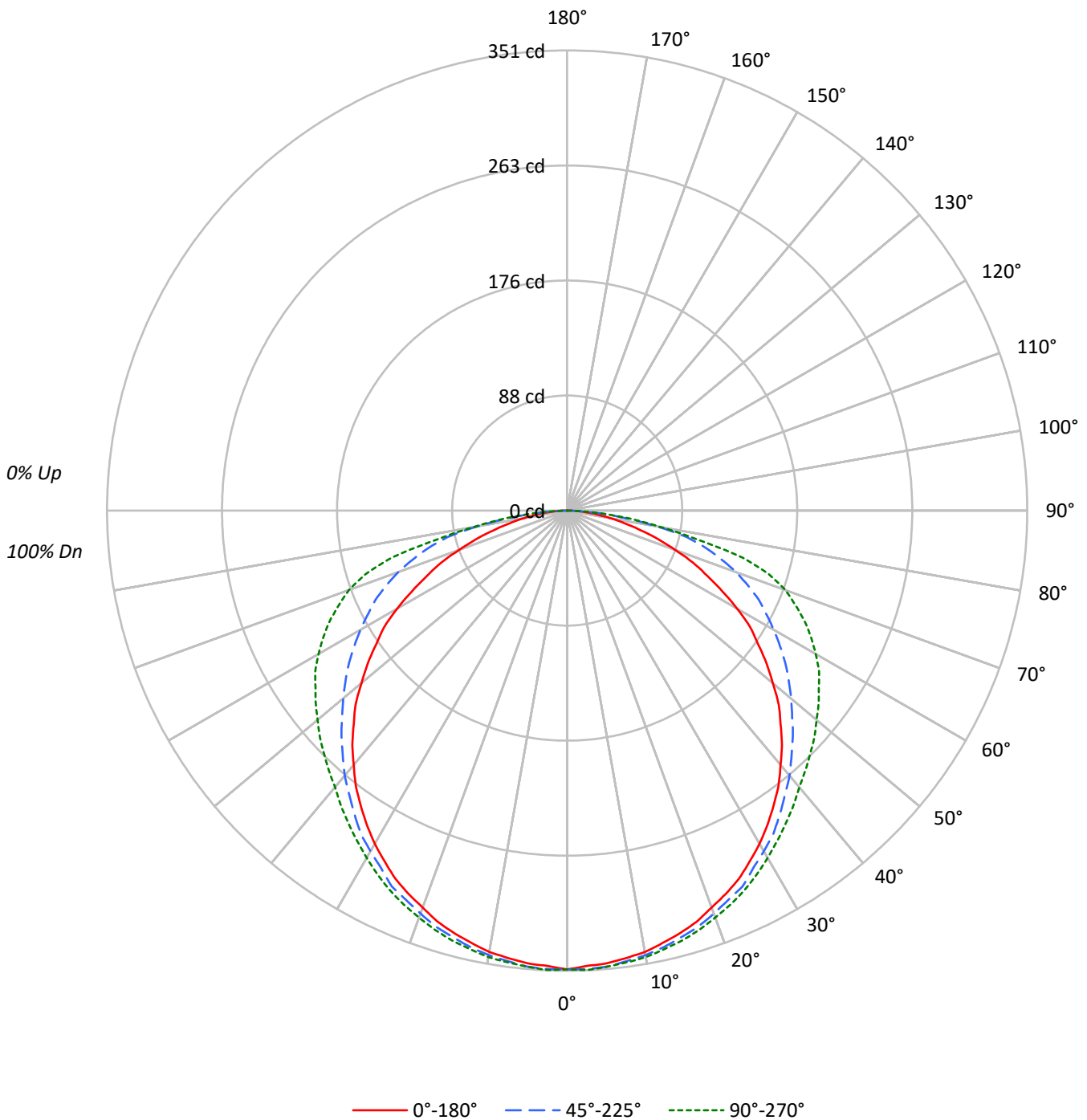
Input Watts (W): 14.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	942	942	942
5°	937	943	943
10°	934	941	945
15°	929	939	946
20°	923	937	946
25°	920	939	949
30°	912	932	950
35°	902	929	956
40°	890	927	967
45°	876	927	998
50°	858	934	1040
55°	835	954	1100
60°	807	980	1178
65°	751	1028	1273
70°	690	1077	1393
75°	605	1133	1440
80°	521	1080	1131
85°	457	784	861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.1	3.0
10°-20°	95.1	8.5
20°-30°	145.0	13.0
30°-40°	177.1	15.9
40°-50°	189.4	17.0
50°-60°	182.8	16.4
60°-70°	157.3	14.1
70°-80°	106.5	9.6
80°-90°	28.1	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°	273.2	24.5
0°-40°	450.3	40.4
0°-60°	822.4	73.8
0°-90°	1114.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1114.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	350	350	350	350	350	
5°	347	348	349	349	349	33
15°	334	334	337	338	339	94
25°	310	312	316	318	320	143
35°	275	277	283	288	291	172
45°	230	234	244	256	262	178
55°	178	184	203	224	234	159
65°	118	130	162	187	200	117
75°	58	77	109	131	138	62
85°	15	20	25	26	28	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	350.0	350.0	350.0	350.0	350.0
2.5°	347.6	348.4	350.0	350.0	350.8
5°	346.7	347.6	349.2	349.2	349.2
7.5°	344.3	345.1	346.7	347.6	347.6
10°	341.8	342.6	344.3	345.1	345.9
12.5°	337.7	338.5	341.0	342.6	342.6
15°	333.6	334.4	336.9	338.5	339.4
17.5°	328.7	330.3	332.8	334.4	335.3
20°	322.2	323.8	327.1	329.5	330.3
22.5°	316.4	318.1	321.3	323.8	325.4
25°	309.9	311.5	316.4	318.1	319.7
27.5°	301.7	303.3	307.4	310.7	313.1
30°	293.5	295.1	300.0	304.1	305.8
32.5°	284.4	286.9	292.6	295.9	298.4
35°	274.6	277.1	282.8	288.5	291.0
37.5°	264.8	267.2	273.0	280.3	283.6
40°	253.3	256.6	264.0	273.8	275.4
42.5°	242.6	246.7	253.3	264.8	268.9
45°	230.3	234.4	243.5	255.8	262.3
47.5°	218.9	223.0	232.8	247.6	255.8
50°	204.9	210.7	223.0	240.2	248.4
52.5°	191.8	196.7	213.1	232.0	241.8
55°	177.9	183.6	203.3	223.8	234.4
57.5°	165.6	170.5	192.6	215.6	227.9
60°	150.0	156.6	182.0	206.6	218.9
62.5°	133.6	143.5	171.3	196.7	209.8
65°	118.0	129.5	161.5	186.9	200.0
67.5°	104.1	116.4	149.2	176.2	188.5
70°	87.7	103.3	136.9	163.1	177.1
72.5°	73.0	90.2	123.0	149.2	161.5
75°	58.2	77.1	109.0	131.2	138.5
77.5°	45.1	63.1	93.4	100.0	100.8
80°	33.6	50.0	69.7	70.5	73.0
82.5°	23.0	35.2	45.1	49.2	50.0
85°	14.8	20.5	25.4	26.2	27.9
87.5°	6.6	7.4	9.0	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)