

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: P390533

Luminaire Tested: **22CZ2-60VHE-RDP-UNV-L940-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: P390533
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: 22CZ2-60VHE-RDP-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RDP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3510.3 lumens
Efficiency: N/A
Efficacy: 79.6 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

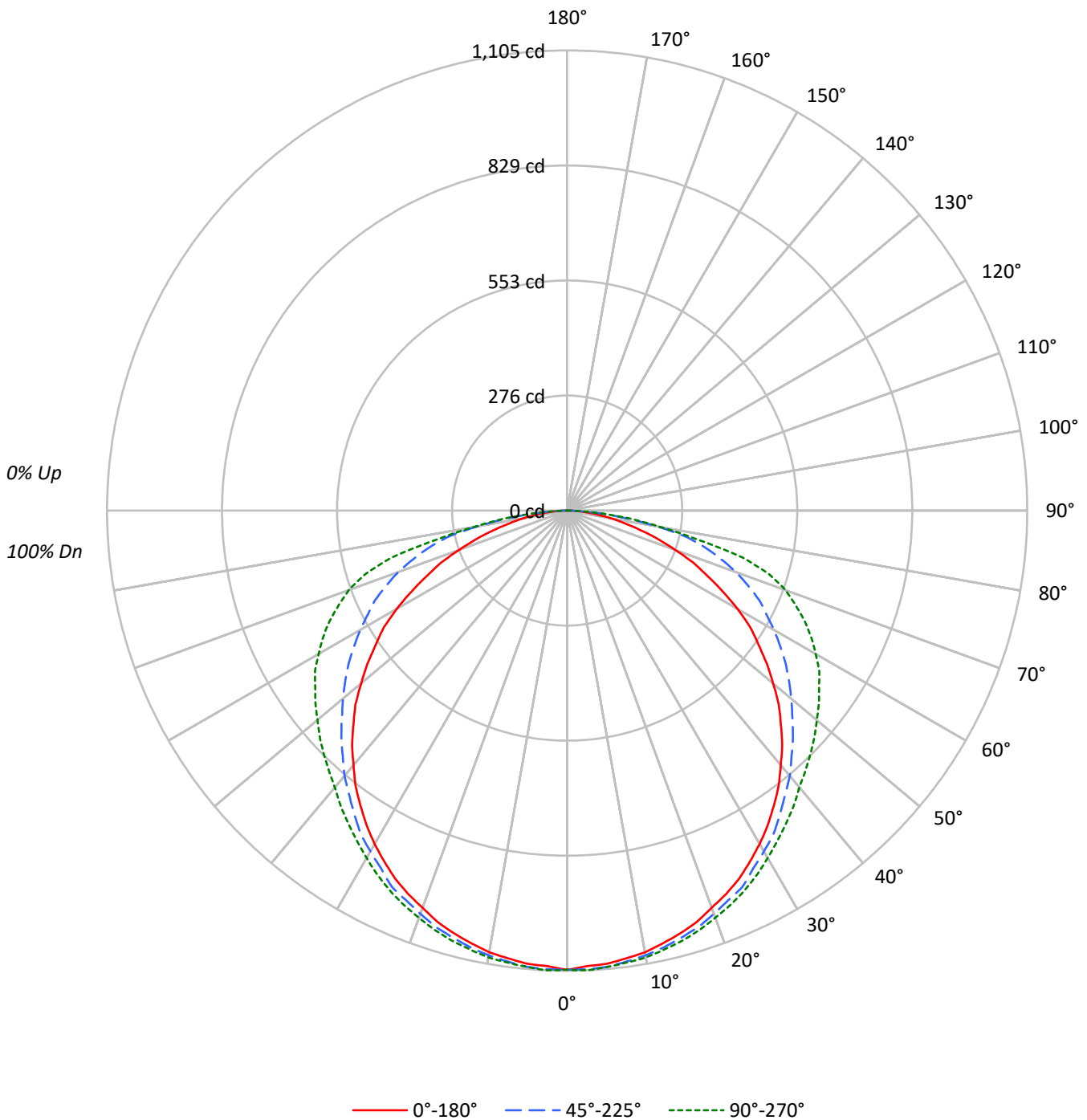
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2967	2967	2967
5°	2951	2972	2972
10°	2942	2964	2978
15°	2928	2957	2978
20°	2906	2950	2980
25°	2898	2960	2990
30°	2873	2937	2993
35°	2842	2927	3011
40°	2803	2921	3048
45°	2761	2919	3145
50°	2703	2941	3275
55°	2629	3004	3465
60°	2544	3085	3711
65°	2368	3239	4012
70°	2174	3393	4389
75°	1906	3570	4537
80°	1641	3402	3561
85°	1436	2473	2711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.0
10°-20°	299.5	8.5
20°-30°	456.9	13.0
30°-40°	557.9	15.9
40°-50°	596.5	17.0
50°-60°	575.8	16.4
60°-70°	495.6	14.1
70°-80°	335.3	9.6
80°-90°	88.5	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°	860.7	24.5
0°-40°	1418.6	40.4
0°-60°	2590.8	73.8
0°-90°	3510.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3510.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1092	1095	1100	1100	1100	104
15°	1051	1054	1061	1066	1069	297
25°	976	981	997	1002	1007	449
35°	865	873	891	909	917	541
45°	726	738	767	806	826	560
55°	560	578	640	705	738	502
65°	372	408	509	589	630	370
75°	183	243	343	413	436	197
85°	46	65	80	83	88	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.6	1102.6	1102.6	1102.6	1102.6
2.5°	1094.9	1097.5	1102.6	1102.6	1105.2
5°	1092.3	1094.9	1100.1	1100.1	1100.1
7.5°	1084.6	1087.2	1092.3	1094.9	1094.9
10°	1076.8	1079.4	1084.6	1087.2	1089.7
12.5°	1063.9	1066.5	1074.2	1079.4	1079.4
15°	1051.0	1053.6	1061.3	1066.5	1069.1
17.5°	1035.5	1040.7	1048.4	1053.6	1056.2
20°	1014.8	1020.0	1030.3	1038.1	1040.7
22.5°	996.8	1001.9	1012.3	1020.0	1025.2
25°	976.1	981.3	996.8	1001.9	1007.1
27.5°	950.3	955.5	968.4	978.7	986.4
30°	924.5	929.6	945.1	958.0	963.2
32.5°	896.1	903.8	921.9	932.2	940.0
35°	865.1	872.8	890.9	909.0	916.7
37.5°	834.1	841.8	859.9	883.2	893.5
40°	797.9	808.3	831.5	862.5	867.7
42.5°	764.4	777.3	797.9	834.1	847.0
45°	725.6	738.5	766.9	805.7	826.3
47.5°	689.5	702.4	733.4	779.9	805.7
50°	645.6	663.7	702.4	756.6	782.4
52.5°	604.3	619.8	671.4	730.8	761.8
55°	560.4	578.4	640.4	705.0	738.5
57.5°	521.6	537.1	606.8	679.1	717.9
60°	472.6	493.2	573.3	650.7	689.5
62.5°	420.9	451.9	539.7	619.8	661.1
65°	371.9	408.0	508.7	588.8	630.1
67.5°	328.0	366.7	470.0	555.2	593.9
70°	276.3	325.4	431.2	513.9	557.8
72.5°	229.8	284.1	387.3	470.0	508.7
75°	183.3	242.7	343.4	413.2	436.4
77.5°	142.0	198.8	294.4	315.0	317.6
80°	105.9	157.5	219.5	222.1	229.8
82.5°	72.3	111.0	142.0	154.9	157.5
85°	46.5	64.6	80.1	82.6	87.8
87.5°	20.7	23.2	28.4	25.8	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)