

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: P277405

Luminaire Tested: **22CZ2-29HE-S-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277405
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-S-UNV-L82765-W2A1-U-5700K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2920.0 lumens
Efficiency: N/A
Efficacy: 136.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

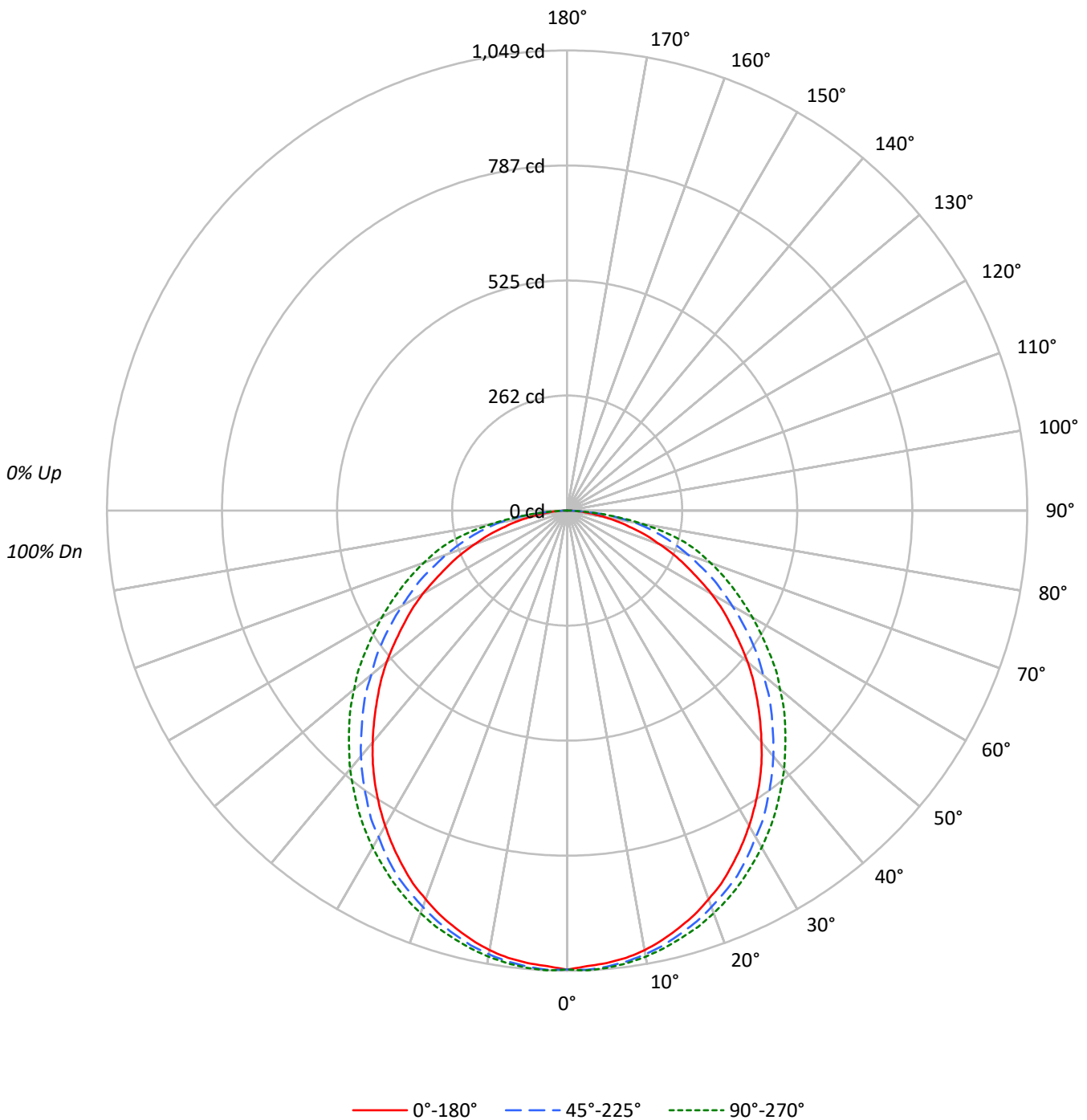
Input Watts (W): 21.39
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2816	2816	2816
5°	2797	2819	2826
10°	2781	2807	2822
15°	2744	2782	2809
20°	2700	2755	2797
25°	2646	2727	2779
30°	2578	2671	2756
35°	2506	2623	2730
40°	2422	2570	2704
45°	2333	2509	2675
50°	2247	2441	2652
55°	2141	2397	2633
60°	2046	2339	2625
65°	1908	2325	2655
70°	1758	2305	2733
75°	1587	2337	2876
80°	1373	2407	2703
85°	1136	2019	2019



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.9	3.4
10°-20°	281.6	9.6
20°-30°	421.3	14.4
30°-40°	499.0	17.1
40°-50°	508.5	17.4
50°-60°	455.8	15.6
60°-70°	356.8	12.2
70°-80°	230.1	7.9
80°-90°	68.0	2.3
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°	801.9	27.5
0°-40°	1300.8	44.5
0°-60°	2265.1	77.6
0°-90°	2920.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2920.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1035	1038	1044	1045	1046	98
15°	985	990	999	1007	1008	278
25°	891	899	918	930	936	410
35°	763	772	798	823	831	477
45°	613	627	659	694	703	473
55°	456	471	511	546	561	409
65°	300	317	365	400	417	298
75°	153	176	225	263	277	164
85°	37	50	65	65	65	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.3	1046.3	1046.3	1046.3	1046.3
2.5°	1039.5	1042.2	1047.7	1049.1	1049.1
5°	1035.4	1038.2	1043.6	1045.0	1046.3
7.5°	1028.6	1030.0	1036.8	1039.5	1040.9
10°	1017.7	1020.4	1027.3	1031.3	1032.7
12.5°	1002.7	1006.8	1015.0	1020.4	1021.8
15°	985.0	990.5	998.6	1006.8	1008.2
17.5°	965.9	971.4	982.3	991.8	994.6
20°	942.8	949.6	961.9	972.8	976.8
22.5°	919.6	925.1	940.1	953.7	957.8
25°	891.0	899.2	918.3	930.5	936.0
27.5°	861.0	870.6	889.7	906.0	911.4
30°	829.7	839.2	859.7	880.1	886.9
32.5°	797.0	807.9	832.4	852.9	859.7
35°	762.9	772.5	798.4	822.9	831.1
37.5°	727.5	735.7	765.7	791.6	799.7
40°	689.4	700.3	731.6	761.6	769.8
42.5°	651.2	663.5	694.8	727.5	735.7
45°	613.1	626.7	659.4	693.5	703.0
47.5°	576.3	587.2	624.0	656.7	670.3
50°	536.8	547.7	583.1	619.9	633.5
52.5°	495.9	510.9	549.0	584.5	600.8
55°	456.4	471.4	510.9	546.3	561.3
57.5°	419.6	431.9	472.8	509.5	524.5
60°	380.1	391.0	434.6	474.1	487.7
62.5°	337.9	354.2	399.2	436.0	452.3
65°	299.7	317.4	365.1	400.5	416.9
67.5°	264.3	280.7	327.0	365.1	382.8
70°	223.4	245.2	292.9	331.1	347.4
72.5°	190.7	209.8	258.9	297.0	314.7
75°	152.6	175.8	224.8	262.9	276.6
77.5°	121.3	144.4	190.7	220.7	227.5
80°	88.6	111.7	155.3	170.3	174.4
82.5°	59.9	81.7	111.7	115.8	117.2
85°	36.8	50.4	65.4	65.4	65.4
87.5°	17.7	20.4	23.2	21.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)