

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: P277370

Luminaire Tested: **22CZ2-39HE-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277370
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: 22CZ2-39HE-S-UNV-L93050-W2A1-U-3000K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3011.0 lumens
Efficiency: N/A
Efficacy: 97.7 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

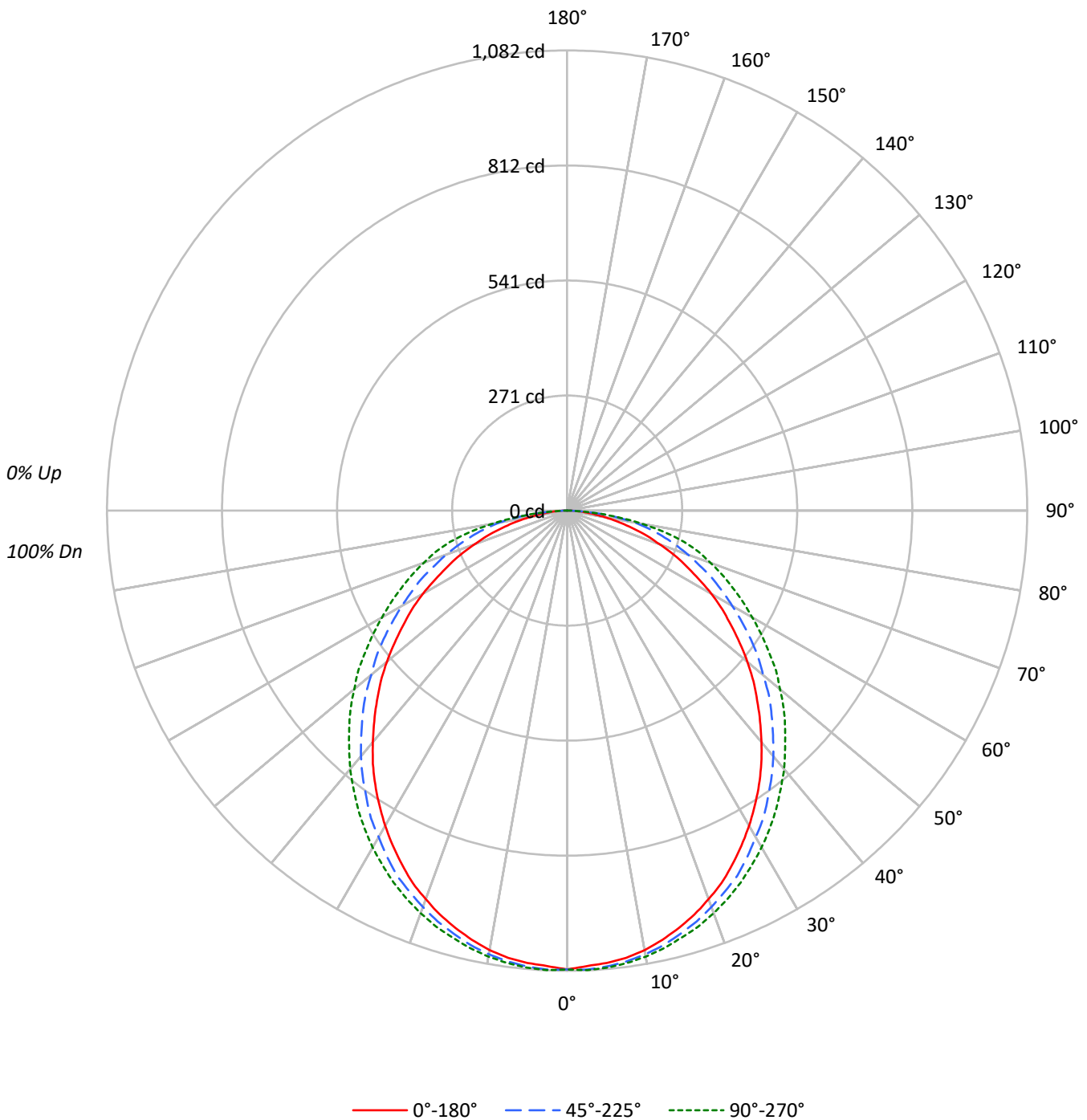
Input Watts (W): 30.825036
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2903	2903	2903
5°	2884	2907	2914
10°	2867	2895	2910
15°	2830	2869	2896
20°	2784	2840	2885
25°	2728	2812	2866
30°	2659	2755	2842
35°	2584	2705	2815
40°	2497	2650	2788
45°	2406	2588	2759
50°	2317	2517	2735
55°	2208	2472	2715
60°	2110	2412	2707
65°	1968	2397	2737
70°	1813	2376	2818
75°	1635	2410	2965
80°	1415	2483	2786
85°	1170	2081	2081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	3.4
10°-20°	290.4	9.6
20°-30°	434.5	14.4
30°-40°	514.5	17.1
40°-50°	524.4	17.4
50°-60°	470.0	15.6
60°-70°	367.9	12.2
70°-80°	237.3	7.9
80°-90°	70.1	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°	826.9	27.5
0°-40°	1341.4	44.5
0°-60°	2335.7	77.6
0°-90°	3011.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3011.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1068	1070	1076	1078	1079	101
15°	1016	1021	1030	1038	1040	286
25°	919	927	947	960	965	423
35°	787	797	823	848	857	492
45°	632	646	680	715	725	488
55°	471	486	527	563	579	422
65°	309	327	376	413	430	307
75°	157	181	232	271	285	169
85°	38	52	67	67	67	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.9	1078.9	1078.9	1078.9	1078.9
2.5°	1071.9	1074.7	1080.3	1081.7	1081.7
5°	1067.7	1070.5	1076.1	1077.5	1078.9
7.5°	1060.7	1062.1	1069.1	1071.9	1073.3
10°	1049.4	1052.2	1059.3	1063.5	1064.9
12.5°	1034.0	1038.2	1046.6	1052.2	1053.6
15°	1015.7	1021.3	1029.8	1038.2	1039.6
17.5°	996.0	1001.7	1012.9	1022.7	1025.6
20°	972.2	979.2	991.8	1003.1	1007.3
22.5°	948.3	953.9	969.4	983.4	987.6
25°	918.8	927.2	946.9	959.5	965.1
27.5°	887.9	897.7	917.4	934.2	939.9
30°	855.6	865.4	886.5	907.5	914.6
32.5°	821.8	833.1	858.4	879.4	886.5
35°	786.7	796.6	823.3	848.5	857.0
37.5°	750.2	758.6	789.5	816.2	824.7
40°	710.9	722.1	754.4	785.3	793.7
42.5°	671.5	684.2	716.5	750.2	758.6
45°	632.2	646.2	680.0	715.1	724.9
47.5°	594.3	605.5	643.4	677.1	691.2
50°	553.5	564.8	601.3	639.2	653.3
52.5°	511.4	526.8	566.2	602.7	619.5
55°	470.6	486.1	526.8	563.4	578.8
57.5°	432.7	445.3	487.5	525.4	540.9
60°	392.0	403.2	448.2	488.9	502.9
62.5°	348.4	365.3	411.6	449.6	466.4
65°	309.1	327.3	376.5	413.0	429.9
67.5°	272.5	289.4	337.2	376.5	394.8
70°	230.4	252.9	302.0	341.4	358.2
72.5°	196.7	216.3	266.9	306.3	324.5
75°	157.3	181.2	231.8	271.1	285.2
77.5°	125.0	148.9	196.7	227.6	234.6
80°	91.3	115.2	160.2	175.6	179.8
82.5°	61.8	84.3	115.2	119.4	120.8
85°	37.9	52.0	67.4	67.4	67.4
87.5°	18.3	21.1	23.9	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)