

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: P277528

Luminaire Tested: **22CZ2-29HE-RDP-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277528  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-29HE-RDP-UNV-L93050-W2A1-U-3000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1383.0 lumens  
Efficiency: N/A  
Efficacy: 64.9 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

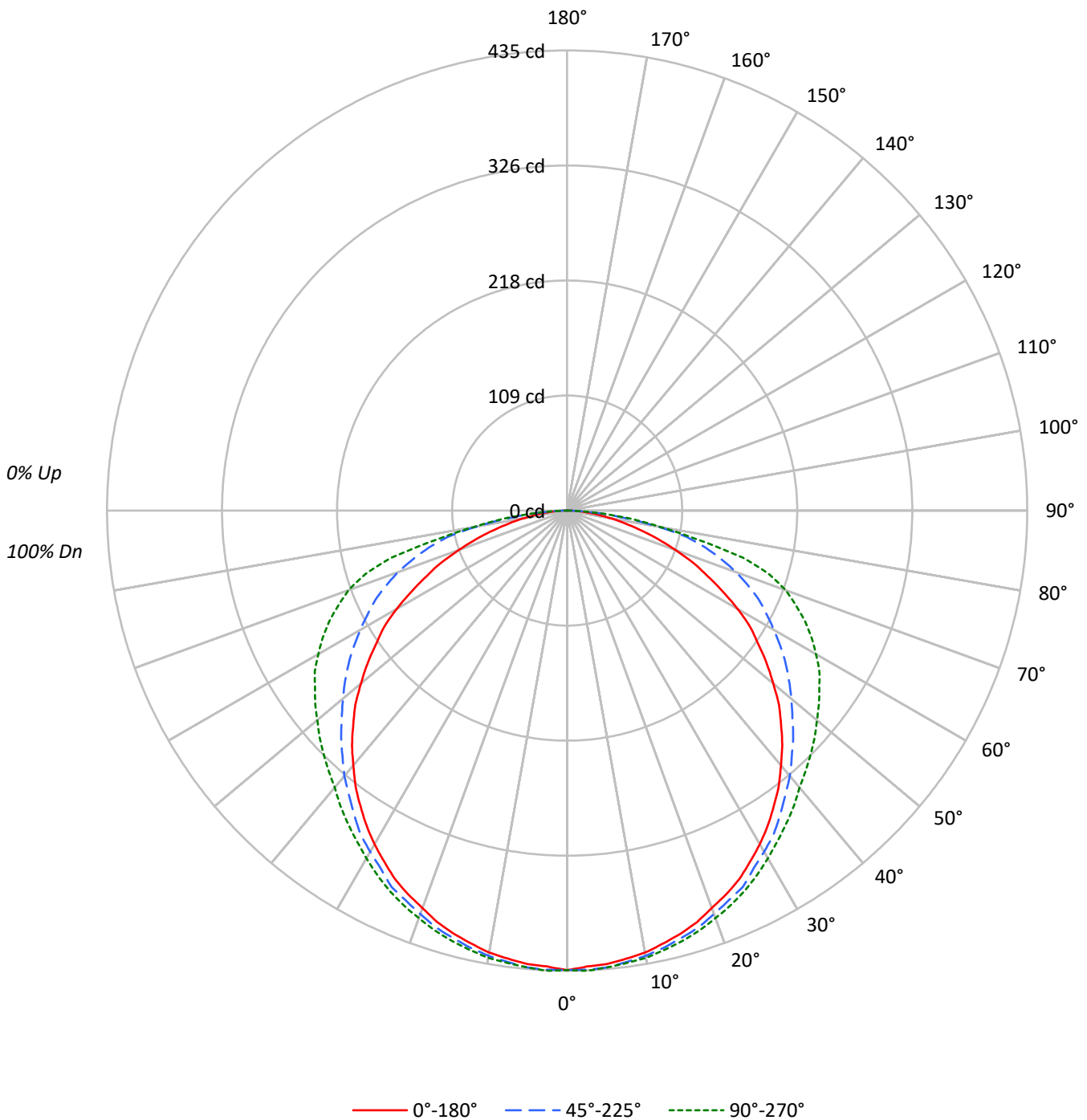
Input Watts (W): 21.311136  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1169	1169	1169
5°	1163	1171	1171
10°	1159	1168	1173
15°	1154	1165	1173
20°	1145	1162	1174
25°	1142	1166	1178
30°	1132	1157	1179
35°	1120	1153	1187
40°	1104	1151	1201
45°	1088	1150	1239
50°	1065	1158	1291
55°	1036	1184	1365
60°	1002	1216	1462
65°	933	1276	1580
70°	857	1337	1729
75°	751	1407	1787
80°	646	1340	1402
85°	565	973	1068



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.1	3.0
10°-20°	118.0	8.5
20°-30°	180.0	13.0
30°-40°	219.8	15.9
40°-50°	235.0	17.0
50°-60°	226.8	16.4
60°-70°	195.3	14.1
70°-80°	132.1	9.6
80°-90°	34.9	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°	339.1	24.5
0°-40°	558.9	40.4
0°-60°	1020.7	73.8
0°-90°	1383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1383.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	434	434	434	434	434	
5°	430	431	433	433	433	41
15°	414	415	418	420	421	117
25°	385	387	393	395	397	177
35°	341	344	351	358	361	213
45°	286	291	302	317	326	221
55°	221	228	252	278	291	198
65°	146	161	200	232	248	146
75°	72	96	135	163	172	77
85°	18	25	32	33	35	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	434.4	434.4	434.4	434.4	434.4
2.5°	431.4	432.4	434.4	434.4	435.4
5°	430.4	431.4	433.4	433.4	433.4
7.5°	427.3	428.3	430.4	431.4	431.4
10°	424.3	425.3	427.3	428.3	429.3
12.5°	419.2	420.2	423.2	425.3	425.3
15°	414.1	415.1	418.1	420.2	421.2
17.5°	408.0	410.0	413.1	415.1	416.1
20°	399.8	401.9	405.9	409.0	410.0
22.5°	392.7	394.7	398.8	401.9	403.9
25°	384.6	386.6	392.7	394.7	396.8
27.5°	374.4	376.4	381.5	385.6	388.6
30°	364.2	366.3	372.4	377.5	379.5
32.5°	353.0	356.1	363.2	367.3	370.3
35°	340.8	343.9	351.0	358.1	361.2
37.5°	328.6	331.7	338.8	347.9	352.0
40°	314.4	318.4	327.6	339.8	341.8
42.5°	301.1	306.2	314.4	328.6	333.7
45°	285.9	291.0	302.2	317.4	325.6
47.5°	271.6	276.7	288.9	307.3	317.4
50°	254.3	261.5	276.7	298.1	308.3
52.5°	238.1	244.2	264.5	287.9	300.1
55°	220.8	227.9	252.3	277.7	291.0
57.5°	205.5	211.6	239.1	267.6	282.8
60°	186.2	194.3	225.9	256.4	271.6
62.5°	165.8	178.0	212.6	244.2	260.5
65°	146.5	160.7	200.4	232.0	248.2
67.5°	129.2	144.5	185.2	218.7	234.0
70°	108.9	128.2	169.9	202.5	219.8
72.5°	90.5	111.9	152.6	185.2	200.4
75°	72.2	95.6	135.3	162.8	171.9
77.5°	56.0	78.3	116.0	124.1	125.1
80°	41.7	62.1	86.5	87.5	90.5
82.5°	28.5	43.7	56.0	61.0	62.1
85°	18.3	25.4	31.5	32.6	34.6
87.5°	8.1	9.2	11.2	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)