

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: P277350

Luminaire Tested: **22CZ2-20HE-S-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277350
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: 22CZ2-20HE-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: 1652.0 lumens
Efficiency: N/A
Efficacy: 104.0 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

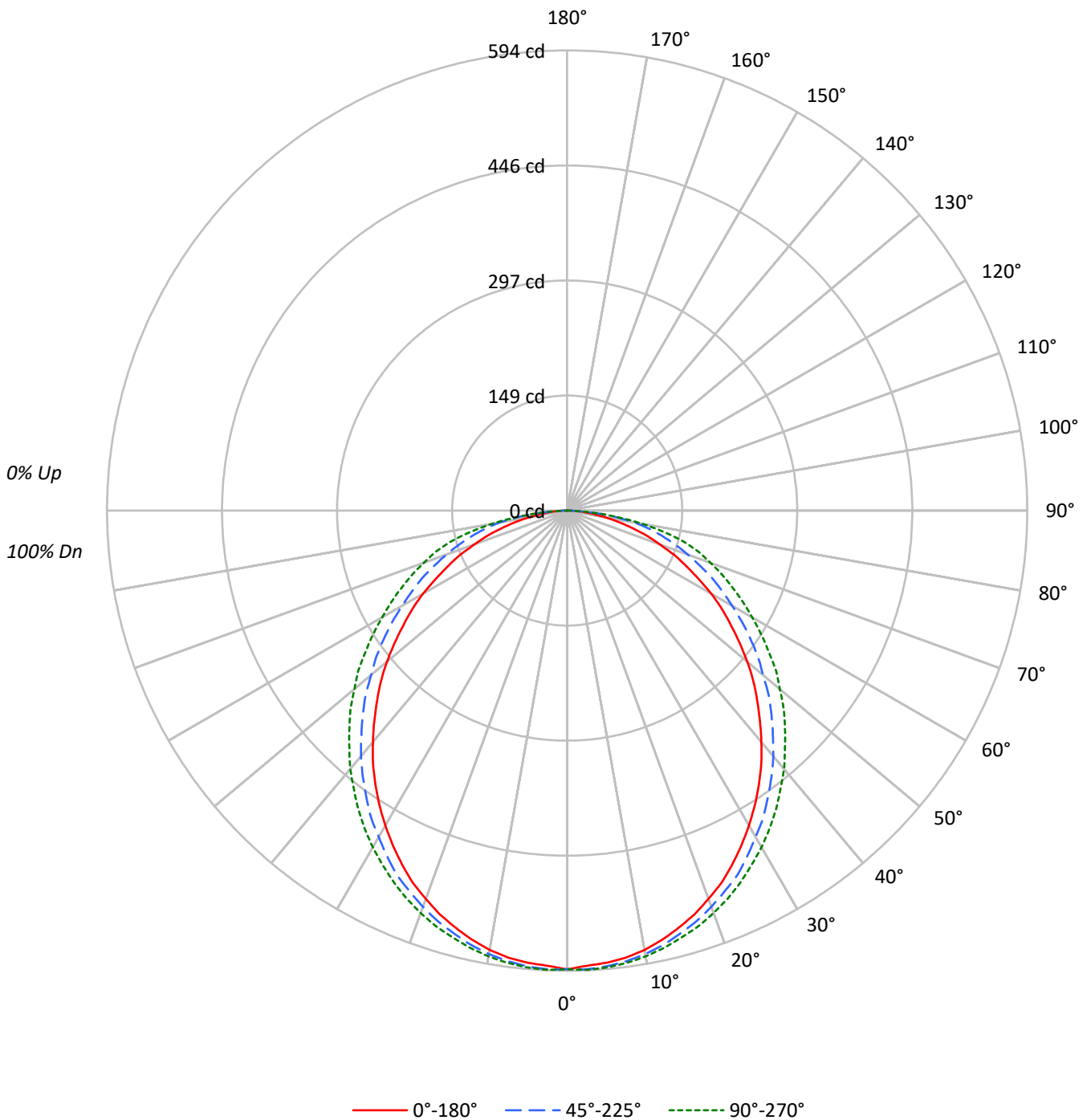
Input Watts (W): 15.888213
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P277350

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L93050-W2A1-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P277350

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L93050-W2A1-U-3000K

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°	1593	1593	1593
5°	1582	1595	1599
10°	1573	1588	1597
15°	1553	1574	1589
20°	1527	1558	1583
25°	1497	1542	1572
30°	1459	1511	1559
35°	1418	1484	1545
40°	1370	1454	1530
45°	1320	1420	1513
50°	1271	1381	1500
55°	1211	1356	1490
60°	1157	1323	1485
65°	1080	1316	1502
70°	995	1304	1547
75°	897	1323	1627
80°	776	1362	1530
85°	642	1142	1142



TEST NUMBER: P277350

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L93050-W2A1-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	3.4
10°-20°	159.3	9.6
20°-30°	238.4	14.4
30°-40°	282.3	17.1
40°-50°	287.7	17.4
50°-60°	257.8	15.6
60°-70°	201.9	12.2
70°-80°	130.2	7.9
80°-90°	38.4	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°	453.7	27.5
0°-40°	736.0	44.5
0°-60°	1281.5	77.6
0°-90°	1652.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1652.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	586	587	590	591	592	56
15°	557	560	565	570	570	157
25°	504	509	520	526	530	232
35°	432	437	452	466	470	270
45°	347	355	373	392	398	268
55°	258	267	289	309	318	232
65°	170	180	207	227	236	168
75°	86	99	127	149	156	93
85°	21	28	37	37	37	24
90°	0	0	0	0	0	



TEST NUMBER: P277350

CATALOG NUMBER: 22CZ2-20HE-S-UNV-L93050-W2A1-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	592.0	592.0	592.0	592.0	592.0
2.5°	588.1	589.7	592.7	593.5	593.5
5°	585.8	587.3	590.4	591.2	592.0
7.5°	581.9	582.7	586.6	588.1	588.9
10°	575.8	577.3	581.2	583.5	584.3
12.5°	567.3	569.6	574.2	577.3	578.1
15°	557.3	560.4	565.0	569.6	570.4
17.5°	546.5	549.6	555.7	561.1	562.7
20°	533.4	537.2	544.2	550.3	552.7
22.5°	520.3	523.4	531.8	539.5	541.9
25°	504.1	508.7	519.5	526.4	529.5
27.5°	487.1	492.5	503.3	512.6	515.7
30°	469.4	474.8	486.4	497.9	501.8
32.5°	450.9	457.1	470.9	482.5	486.4
35°	431.6	437.0	451.7	465.6	470.2
37.5°	411.6	416.2	433.2	447.8	452.5
40°	390.0	396.2	413.9	430.9	435.5
42.5°	368.4	375.4	393.1	411.6	416.2
45°	346.9	354.6	373.1	392.3	397.7
47.5°	326.0	332.2	353.0	371.5	379.2
50°	303.7	309.9	329.9	350.7	358.4
52.5°	280.6	289.0	310.6	330.7	339.9
55°	258.2	266.7	289.0	309.1	317.6
57.5°	237.4	244.3	267.5	288.3	296.8
60°	215.0	221.2	245.9	268.2	275.9
62.5°	191.2	200.4	225.8	246.7	255.9
65°	169.6	179.6	206.6	226.6	235.9
67.5°	149.5	158.8	185.0	206.6	216.6
70°	126.4	138.7	165.7	187.3	196.6
72.5°	107.9	118.7	146.4	168.0	178.1
75°	86.3	99.4	127.2	148.8	156.5
77.5°	68.6	81.7	107.9	124.9	128.7
80°	50.1	63.2	87.9	96.3	98.7
82.5°	33.9	46.2	63.2	65.5	66.3
85°	20.8	28.5	37.0	37.0	37.0
87.5°	10.0	11.6	13.1	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)