

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: P277185

Luminaire Tested: **22CZ2-20HE-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-27)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-20HE-UNV-L93050-W2A1-U-4500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER
WITH RIBBED LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1880.0 lumens
Efficiency: N/A
Efficacy: 116.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

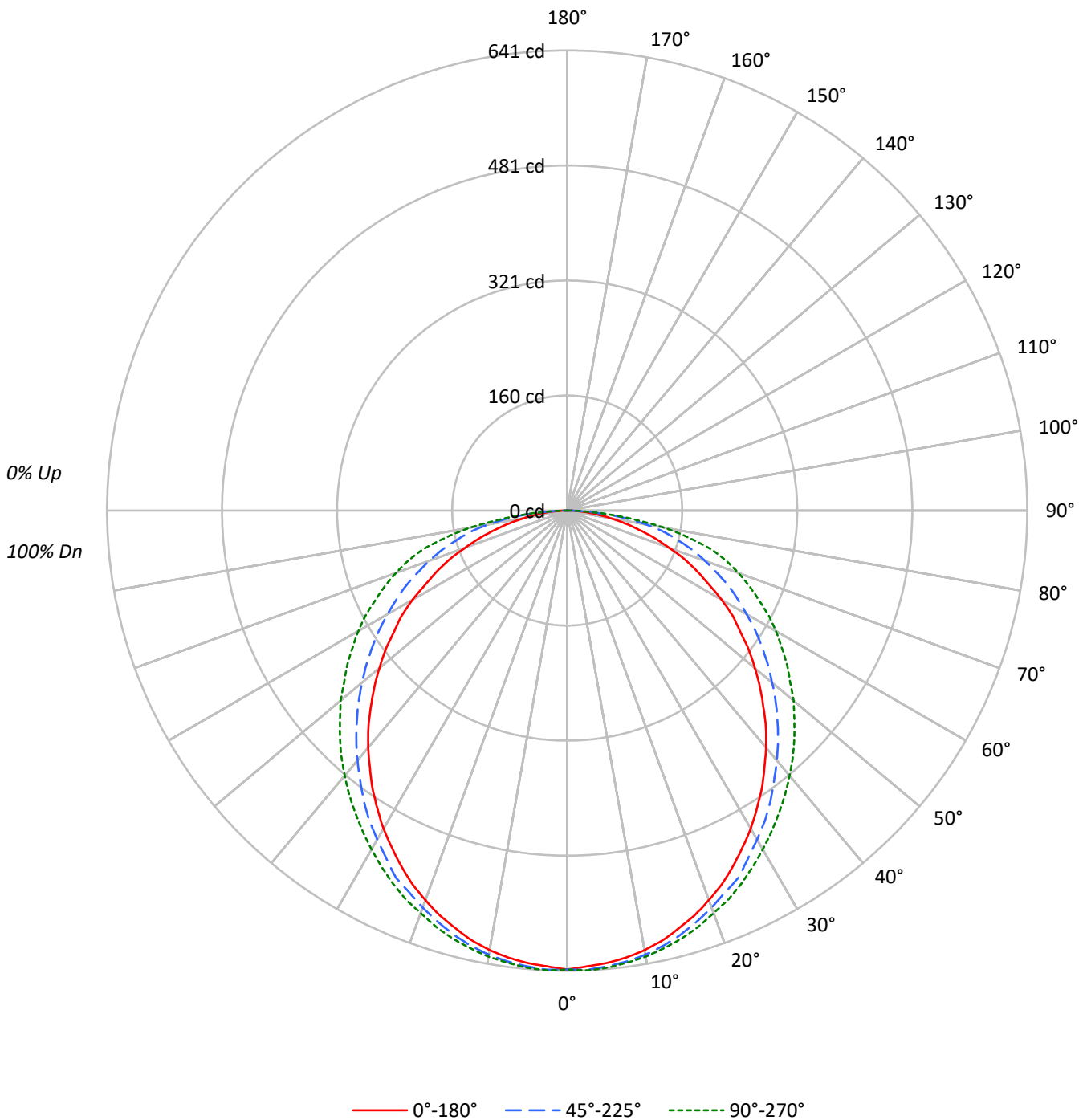
Input Watts (W): 16.183302
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P277185

CATALOG NUMBER: 22CZ2-20HE-UNV-L93050-W2A1-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P277185

CATALOG NUMBER: 22CZ2-20HE-UNV-L93050-W2A1-U-4500K

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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	63	56	51	60	55	50	48
5	75	61	52	45	72	60	52	45	58	50	44	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	35	30	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25
10	52	39	31	25	51	38	30	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1720	1720	1720
5°	1709	1722	1727
10°	1699	1716	1724
15°	1678	1704	1719
20°	1653	1685	1709
25°	1623	1676	1703
30°	1590	1644	1693
35°	1553	1623	1690
40°	1514	1596	1693
45°	1472	1577	1704
50°	1429	1561	1724
55°	1380	1554	1753
60°	1339	1553	1807
65°	1272	1578	1873
70°	1186	1608	1995
75°	1087	1664	2154
80°	947	1734	2122
85°	827	1544	1686



TEST NUMBER: P277185

CATALOG NUMBER: 22CZ2-20HE-UNV-L93050-W2A1-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	3.2
10°-20°	172.2	9.2
20°-30°	258.5	13.7
30°-40°	308.9	16.4
40°-50°	321.2	17.1
50°-60°	297.7	15.8
60°-70°	244.2	13.0
70°-80°	165.1	8.8
80°-90°	51.9	2.8
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°	491.1	26.1
0°-40°	800.0	42.6
0°-60°	1418.9	75.5
0°-90°	1880.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1880.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	633	634	637	638	639	60
15°	602	605	612	615	617	170
25°	547	551	564	571	574	252
35°	473	479	494	509	514	295
45°	387	394	414	438	448	299
55°	294	303	331	361	374	264
65°	200	211	248	280	294	198
75°	104	122	160	192	207	111
85°	27	37	50	56	55	30
90°	0	0	0	0	0	



TEST NUMBER: P277185

CATALOG NUMBER: 22CZ2-20HE-UNV-L93050-W2A1-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	639.2	639.2	639.2	639.2	639.2
2.5°	635.5	637.4	640.2	641.1	641.1
5°	632.8	633.7	637.4	638.3	639.2
7.5°	628.1	630.0	633.7	634.6	635.5
10°	621.7	623.5	628.1	630.0	630.9
12.5°	613.3	615.2	620.7	623.5	624.4
15°	602.2	605.0	611.5	615.2	617.0
17.5°	591.1	593.9	600.4	605.9	607.8
20°	577.3	583.7	588.4	595.8	596.7
22.5°	563.4	567.1	575.4	582.8	586.5
25°	546.7	551.4	564.3	570.8	573.6
27.5°	529.1	535.6	545.8	556.0	559.7
30°	511.6	516.2	529.1	541.2	544.9
32.5°	492.1	498.6	512.5	524.5	530.1
35°	472.7	479.2	494.0	508.8	514.3
37.5°	451.4	458.8	473.6	491.2	498.6
40°	431.1	436.6	454.2	475.5	482.0
42.5°	409.8	416.3	434.8	457.9	465.3
45°	386.7	394.1	414.4	438.5	447.7
47.5°	364.5	371.9	394.1	418.1	429.2
50°	341.4	350.6	372.8	400.6	411.7
52.5°	319.2	327.5	352.5	381.1	391.3
55°	294.2	303.4	331.2	360.8	373.7
57.5°	273.8	280.3	310.8	341.4	354.3
60°	248.8	257.2	288.6	321.0	335.8
62.5°	222.0	235.9	268.3	301.6	316.4
65°	199.8	210.9	247.9	280.3	294.2
67.5°	176.7	188.7	224.8	259.0	274.8
70°	150.8	166.5	204.4	238.7	253.5
72.5°	127.7	144.3	183.2	216.5	232.2
75°	104.5	122.1	160.0	192.4	207.2
77.5°	82.3	101.8	138.8	163.7	173.0
80°	61.1	79.6	111.9	129.5	136.9
82.5°	42.6	58.3	82.3	91.6	93.4
85°	26.8	37.0	50.0	55.5	54.6
87.5°	12.0	14.8	18.5	20.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)