

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: P277351

Luminaire Tested: **22CZ2-20HE-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P277351
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-3500K
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1805.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

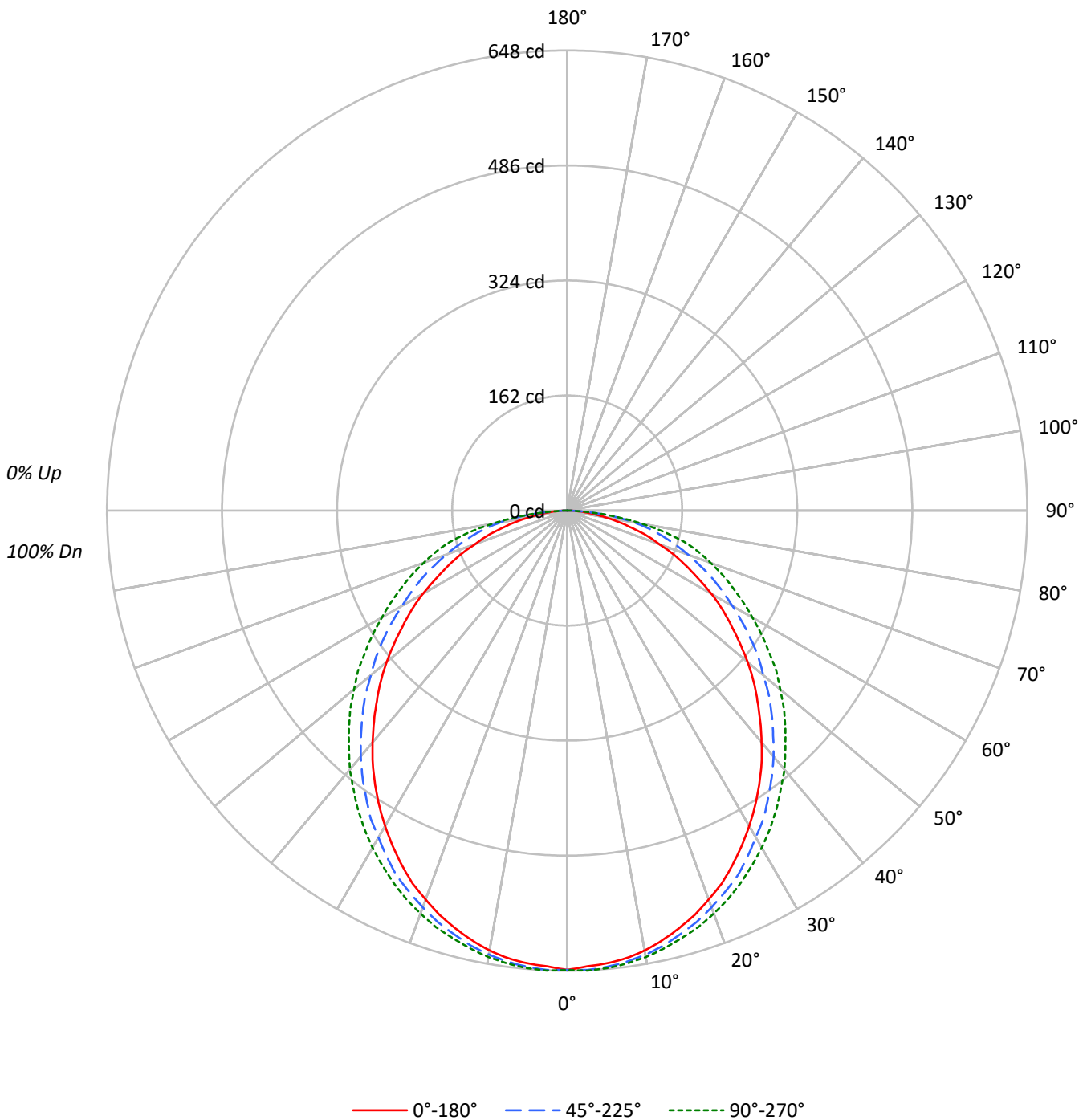
Input Watts (W): 15.826089
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1741	1741	1741
5°	1729	1743	1747
10°	1719	1735	1744
15°	1696	1720	1736
20°	1669	1703	1729
25°	1635	1685	1718
30°	1594	1651	1704
35°	1549	1621	1688
40°	1497	1588	1671
45°	1442	1551	1654
50°	1389	1509	1639
55°	1323	1482	1628
60°	1265	1446	1623
65°	1180	1437	1641
70°	1087	1425	1690
75°	980	1445	1778
80°	848	1488	1671
85°	701	1247	1247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	3.4
10°-20°	174.1	9.6
20°-30°	260.4	14.4
30°-40°	308.4	17.1
40°-50°	314.3	17.4
50°-60°	281.7	15.6
60°-70°	220.6	12.2
70°-80°	142.2	7.9
80°-90°	42.0	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°	495.7	27.5
0°-40°	804.1	44.5
0°-60°	1400.2	77.6
0°-90°	1805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1805.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	647	647	647	647	647	
5°	640	642	645	646	647	61
15°	609	612	617	622	623	172
25°	551	556	568	575	579	254
35°	472	478	494	509	514	295
45°	379	387	408	429	435	293
55°	282	291	316	338	347	253
65°	185	196	226	248	258	184
75°	94	109	139	162	171	101
85°	23	31	40	40	40	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.8	646.8	646.8	646.8	646.8
2.5°	642.6	644.3	647.6	648.5	648.5
5°	640.1	641.7	645.1	645.9	646.8
7.5°	635.8	636.7	640.9	642.6	643.4
10°	629.1	630.8	635.0	637.5	638.4
12.5°	619.8	622.4	627.4	630.8	631.6
15°	608.9	612.3	617.3	622.4	623.2
17.5°	597.1	600.5	607.2	613.1	614.8
20°	582.8	587.0	594.6	601.3	603.8
22.5°	568.5	571.8	581.1	589.5	592.0
25°	550.8	555.8	567.6	575.2	578.6
27.5°	532.3	538.1	549.9	560.0	563.4
30°	512.9	518.8	531.4	544.0	548.3
32.5°	492.7	499.4	514.6	527.2	531.4
35°	471.6	477.5	493.5	508.7	513.7
37.5°	449.7	454.8	473.3	489.3	494.4
40°	426.1	432.9	452.2	470.8	475.8
42.5°	402.6	410.1	429.5	449.7	454.8
45°	379.0	387.4	407.6	428.7	434.6
47.5°	356.2	363.0	385.7	405.9	414.3
50°	331.8	338.6	360.4	383.2	391.6
52.5°	306.6	315.8	339.4	361.3	371.4
55°	282.1	291.4	315.8	337.7	347.0
57.5°	259.4	267.0	292.2	315.0	324.2
60°	235.0	241.7	268.7	293.1	301.5
62.5°	208.9	219.0	246.8	269.5	279.6
65°	185.3	196.2	225.7	247.6	257.7
67.5°	163.4	173.5	202.1	225.7	236.7
70°	138.1	151.6	181.1	204.6	214.8
72.5°	117.9	129.7	160.0	183.6	194.5
75°	94.3	108.6	139.0	162.5	171.0
77.5°	75.0	89.3	117.9	136.4	140.6
80°	54.7	69.1	96.0	105.3	107.8
82.5°	37.1	50.5	69.1	71.6	72.4
85°	22.7	31.2	40.4	40.4	40.4
87.5°	10.9	12.6	14.3	13.5	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)