

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: P277353

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277353  
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-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1983.0 lumens  
Efficiency: N/A  
Efficacy: 122.5 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

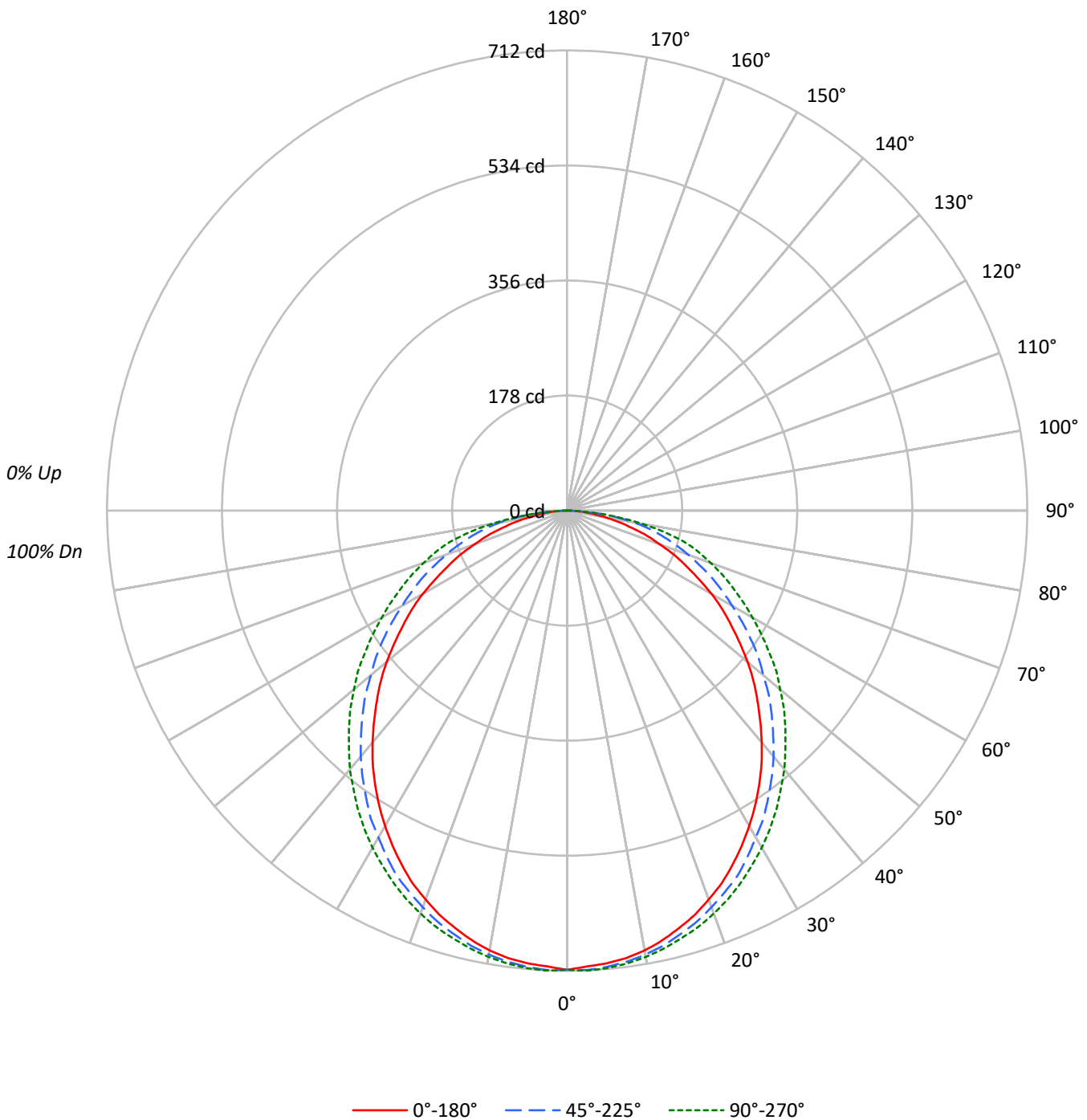
Input Watts (W): 16.183302  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1912	1912	1912
5°	1900	1914	1920
10°	1888	1906	1916
15°	1863	1889	1908
20°	1834	1871	1900
25°	1797	1852	1887
30°	1751	1814	1872
35°	1702	1781	1854
40°	1645	1745	1837
45°	1585	1704	1817
50°	1526	1658	1801
55°	1454	1628	1788
60°	1389	1588	1783
65°	1296	1579	1803
70°	1194	1565	1856
75°	1077	1588	1953
80°	931	1635	1835
85°	772	1371	1371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	3.4
10°-20°	191.2	9.6
20°-30°	286.1	14.4
30°-40°	338.9	17.1
40°-50°	345.3	17.4
50°-60°	309.5	15.6
60°-70°	242.3	12.2
70°-80°	156.3	7.9
80°-90°	46.2	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°	544.6	27.5
0°-40°	883.4	44.5
0°-60°	1538.3	77.6
0°-90°	1983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1983.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	703	705	709	710	711	67
15°	669	673	678	684	685	189
25°	605	611	624	632	636	279
35°	518	525	542	559	564	324
45°	416	426	448	471	477	322
55°	310	320	347	371	381	278
65°	204	216	248	272	283	202
75°	104	119	153	179	188	111
85°	25	34	44	44	44	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	710.6	710.6	710.6	710.6	710.6
2.5°	705.9	707.8	711.5	712.4	712.4
5°	703.2	705.0	708.7	709.6	710.6
7.5°	698.5	699.5	704.1	705.9	706.9
10°	691.1	693.0	697.6	700.4	701.3
12.5°	681.0	683.7	689.3	693.0	693.9
15°	668.9	672.6	678.2	683.7	684.7
17.5°	656.0	659.7	667.1	673.6	675.4
20°	640.3	644.9	653.2	660.6	663.4
22.5°	624.5	628.2	638.4	647.7	650.4
25°	605.1	610.6	623.6	631.9	635.6
27.5°	584.7	591.2	604.2	615.3	619.0
30°	563.5	569.9	583.8	597.7	602.3
32.5°	541.3	548.7	565.3	579.2	583.8
35°	518.1	524.6	542.2	558.8	564.4
37.5°	494.1	499.6	520.0	537.6	543.1
40°	468.2	475.6	496.8	517.2	522.8
42.5°	442.3	450.6	471.9	494.1	499.6
45°	416.4	425.6	447.8	470.9	477.4
47.5°	391.4	398.8	423.8	446.0	455.2
50°	364.5	371.9	396.0	421.0	430.2
52.5°	336.8	347.0	372.9	396.9	408.0
55°	309.9	320.1	347.0	371.0	381.2
57.5°	285.0	293.3	321.1	346.0	356.2
60°	258.1	265.5	295.1	322.0	331.2
62.5°	229.5	240.6	271.1	296.1	307.2
65°	203.5	215.6	248.0	272.0	283.1
67.5°	179.5	190.6	222.1	248.0	260.0
70°	151.7	166.5	198.9	224.8	235.9
72.5°	129.5	142.5	175.8	201.7	213.7
75°	103.6	119.4	152.7	178.6	187.8
77.5°	82.3	98.1	129.5	149.9	154.5
80°	60.1	75.9	105.5	115.7	118.4
82.5°	40.7	55.5	75.9	78.6	79.6
85°	25.0	34.2	44.4	44.4	44.4
87.5°	12.0	13.9	15.7	14.8	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)