

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: P277384

Luminaire Tested: **22CZ2-20HE-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277384  
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-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2157.0 lumens  
Efficiency: N/A  
Efficacy: 136.4 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

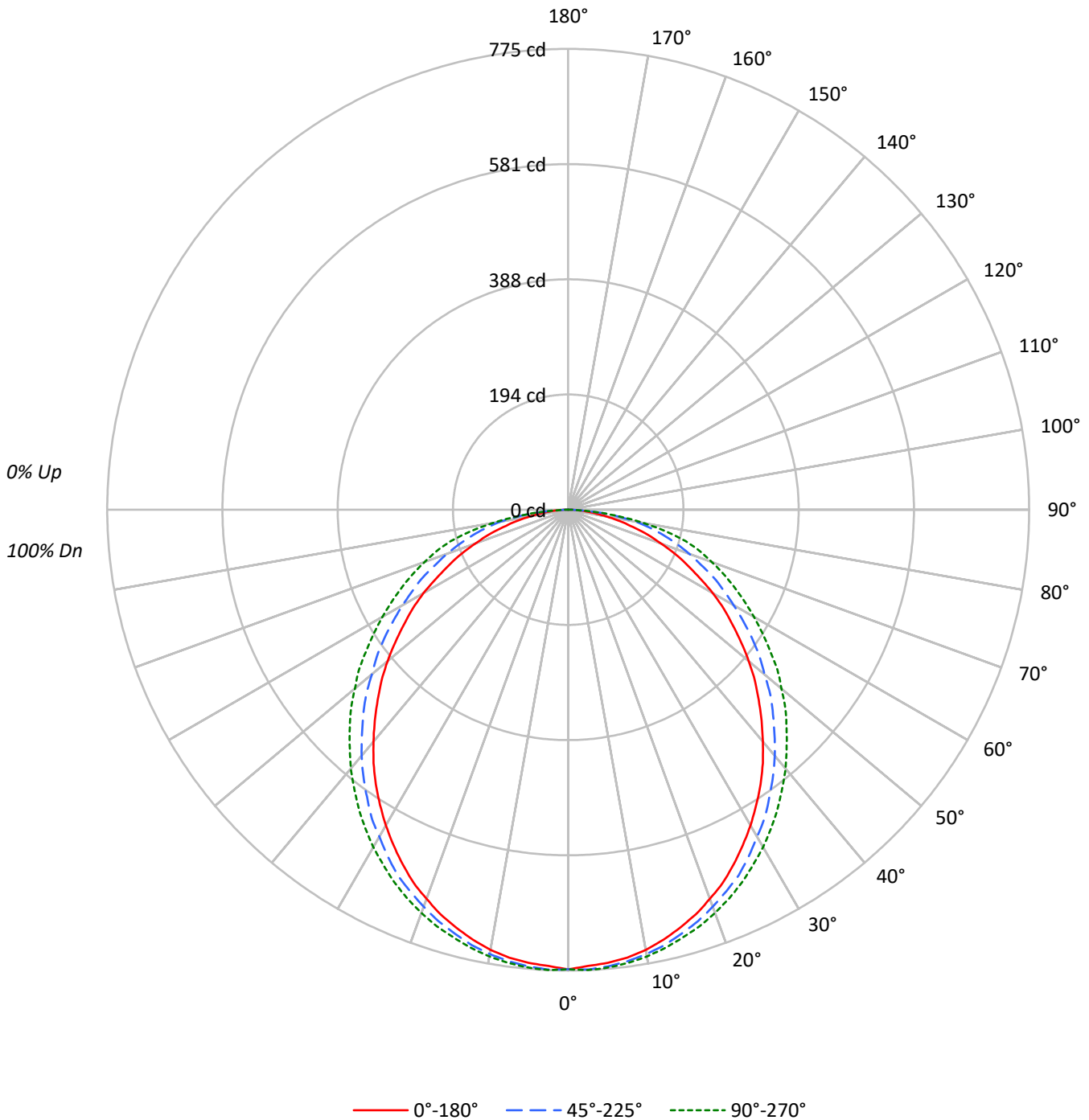
Input Watts (W): 15.81  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2080	2080	2080
5°	2066	2082	2088
10°	2054	2073	2085
15°	2027	2055	2075
20°	1994	2035	2066
25°	1954	2014	2053
30°	1904	1973	2036
35°	1851	1938	2017
40°	1789	1898	1997
45°	1724	1854	1976
50°	1660	1803	1959
55°	1582	1771	1945
60°	1511	1728	1939
65°	1410	1717	1961
70°	1299	1703	2019
75°	1172	1727	2124
80°	1013	1777	1996
85°	840	1491	1491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.1	3.4
10°-20°	208.0	9.6
20°-30°	311.2	14.4
30°-40°	368.6	17.1
40°-50°	375.6	17.4
50°-60°	336.7	15.6
60°-70°	263.6	12.2
70°-80°	170.0	7.9
80°-90°	50.2	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°	592.3	27.5
0°-40°	960.9	44.5
0°-60°	1673.2	77.6
0°-90°	2157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2157.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	765	767	771	772	773	73
15°	728	732	738	744	745	205
25°	658	664	678	687	691	303
35°	564	571	590	608	614	352
45°	453	463	487	512	519	350
55°	337	348	377	404	415	302
65°	221	234	270	296	308	220
75°	113	130	166	194	204	121
85°	27	37	48	48	48	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	772.9	772.9	772.9	772.9	772.9
2.5°	767.9	769.9	773.9	774.9	774.9
5°	764.9	766.9	770.9	771.9	772.9
7.5°	759.8	760.8	765.9	767.9	768.9
10°	751.8	753.8	758.8	761.8	762.9
12.5°	740.7	743.7	749.8	753.8	754.8
15°	727.6	731.7	737.7	743.7	744.7
17.5°	713.5	717.6	725.6	732.7	734.7
20°	696.4	701.5	710.5	718.6	721.6
22.5°	679.3	683.4	694.4	704.5	707.5
25°	658.2	664.2	678.3	687.4	691.4
27.5°	636.0	643.1	657.2	669.3	673.3
30°	612.9	619.9	635.0	650.1	655.2
32.5°	588.7	596.8	614.9	630.0	635.0
35°	563.6	570.6	589.8	607.9	613.9
37.5°	537.4	543.5	565.6	584.7	590.8
40°	509.2	517.3	540.4	562.6	568.6
42.5°	481.1	490.1	513.3	537.4	543.5
45°	452.9	462.9	487.1	512.3	519.3
47.5°	425.7	433.8	460.9	485.1	495.2
50°	396.5	404.6	430.7	457.9	468.0
52.5°	366.3	377.4	405.6	431.7	443.8
55°	337.1	348.2	377.4	403.6	414.6
57.5°	310.0	319.0	349.2	376.4	387.5
60°	280.8	288.8	321.0	350.2	360.3
62.5°	249.6	261.7	294.9	322.1	334.1
65°	221.4	234.5	269.7	295.9	308.0
67.5°	195.2	207.3	241.5	269.7	282.8
70°	165.1	181.2	216.4	244.6	256.6
72.5°	140.9	155.0	191.2	219.4	232.5
75°	112.7	129.8	166.1	194.2	204.3
77.5°	89.6	106.7	140.9	163.0	168.1
80°	65.4	82.5	114.7	125.8	128.8
82.5°	44.3	60.4	82.5	85.5	86.6
85°	27.2	37.2	48.3	48.3	48.3
87.5°	13.1	15.1	17.1	16.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)