

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: P277156

Luminaire Tested: **22CZ2-20HE-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277156  
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-L83050-W2A1-U-5000K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2134.0 lumens  
Efficiency: N/A  
Efficacy: 131.1 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

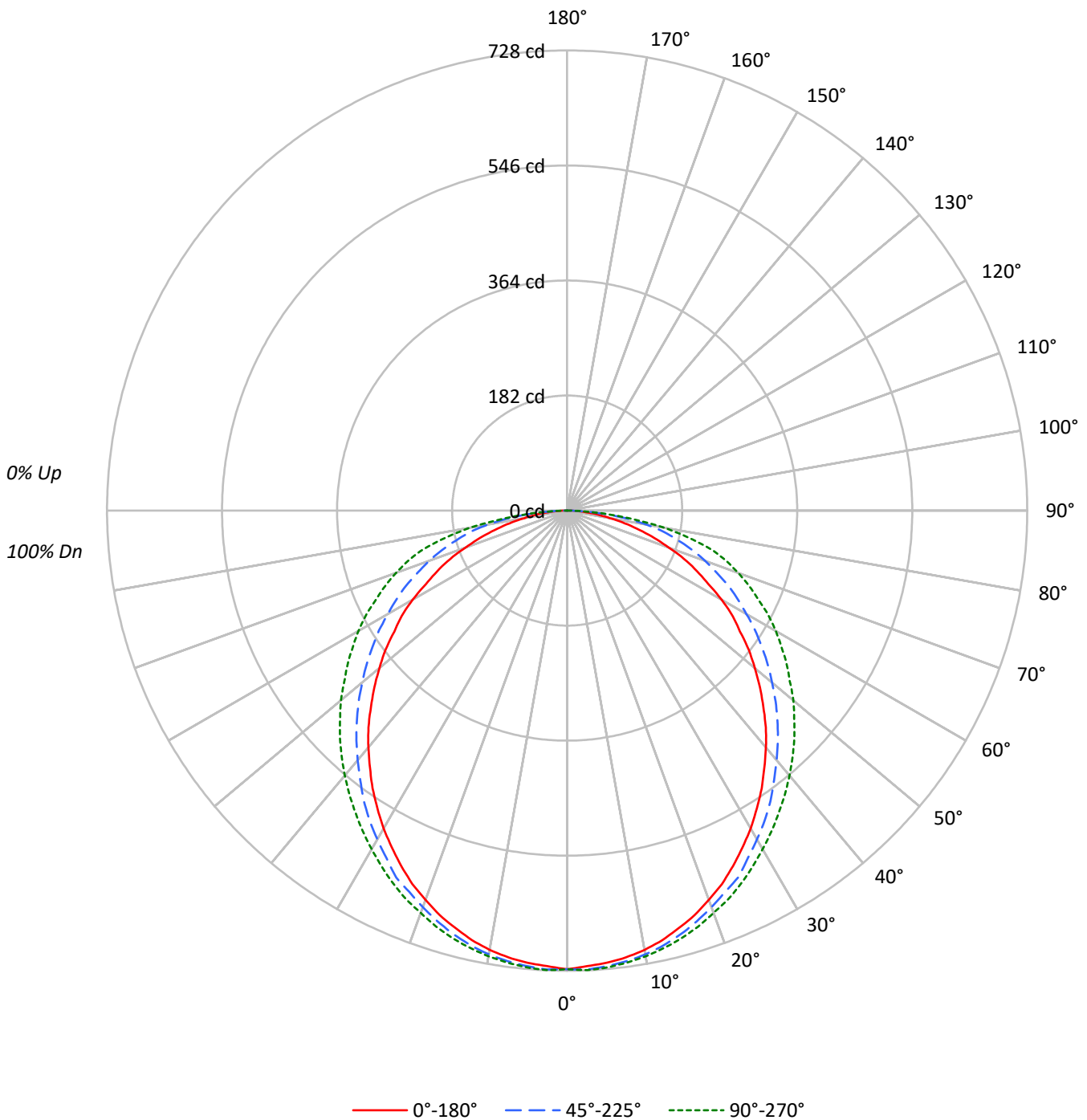
Input Watts (W): 16.275  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	43	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°	1953	1953	1953
5°	1940	1954	1960
10°	1928	1948	1957
15°	1904	1934	1951
20°	1876	1912	1940
25°	1843	1902	1933
30°	1804	1866	1922
35°	1763	1842	1918
40°	1719	1811	1922
45°	1670	1790	1934
50°	1622	1772	1956
55°	1567	1764	1990
60°	1520	1763	2052
65°	1444	1792	2126
70°	1347	1826	2264
75°	1234	1889	2445
80°	1074	1970	2408
85°	942	1751	1914



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	3.2
10°-20°	195.5	9.2
20°-30°	293.4	13.7
30°-40°	350.6	16.4
40°-50°	364.6	17.1
50°-60°	337.9	15.8
60°-70°	277.2	13.0
70°-80°	187.4	8.8
80°-90°	58.9	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°	557.5	26.1
0°-40°	908.1	42.6
0°-60°	1610.5	75.5
0°-90°	2134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2134.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	718	719	724	724	726	68
15°	684	687	694	698	700	193
25°	621	626	640	648	651	286
35°	537	544	561	578	584	335
45°	439	447	470	498	508	339
55°	334	344	376	410	424	300
65°	227	239	281	318	334	224
75°	119	139	182	218	235	126
85°	30	42	57	63	62	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	725.6	725.6	725.6	725.6	725.6
2.5°	721.4	723.5	726.6	727.7	727.7
5°	718.2	719.3	723.5	724.5	725.6
7.5°	713.0	715.1	719.3	720.3	721.4
10°	705.6	707.7	713.0	715.1	716.1
12.5°	696.2	698.3	704.6	707.7	708.8
15°	683.6	686.7	694.1	698.3	700.4
17.5°	671.0	674.1	681.5	687.8	689.9
20°	655.2	662.6	667.8	676.2	677.3
22.5°	639.5	643.7	653.1	661.5	665.7
25°	620.6	625.8	640.5	647.9	651.0
27.5°	600.6	608.0	619.5	631.1	635.3
30°	580.7	585.9	600.6	614.3	618.5
32.5°	558.6	566.0	581.7	595.4	601.7
35°	536.6	543.9	560.7	577.5	583.8
37.5°	512.4	520.8	537.6	557.6	566.0
40°	489.3	495.6	515.6	539.7	547.1
42.5°	465.2	472.5	493.5	519.8	528.2
45°	438.9	447.3	470.4	497.7	508.2
47.5°	413.7	422.1	447.3	474.6	487.2
50°	387.5	398.0	423.2	454.7	467.3
52.5°	362.3	371.7	400.1	432.6	444.2
55°	333.9	344.4	375.9	409.5	424.2
57.5°	310.8	318.2	352.8	387.5	402.2
60°	282.5	291.9	327.6	364.4	381.2
62.5°	252.0	267.8	304.5	342.3	359.1
65°	226.8	239.4	281.4	318.2	333.9
67.5°	200.6	214.2	255.2	294.0	311.9
70°	171.2	189.0	232.1	270.9	287.7
72.5°	144.9	163.8	207.9	245.7	263.6
75°	118.7	138.6	181.7	218.4	235.2
77.5°	93.5	115.5	157.5	185.9	196.4
80°	69.3	90.3	127.1	147.0	155.4
82.5°	48.3	66.2	93.5	104.0	106.1
85°	30.5	42.0	56.7	63.0	62.0
87.5°	13.7	16.8	21.0	23.1	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)