

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: P277496

Luminaire Tested: **22CZ2-24HE-RDP-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277496  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-24HE-RDP-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2.0 2x2 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1611.0 lumens  
Efficiency: N/A  
Efficacy: 87.5 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

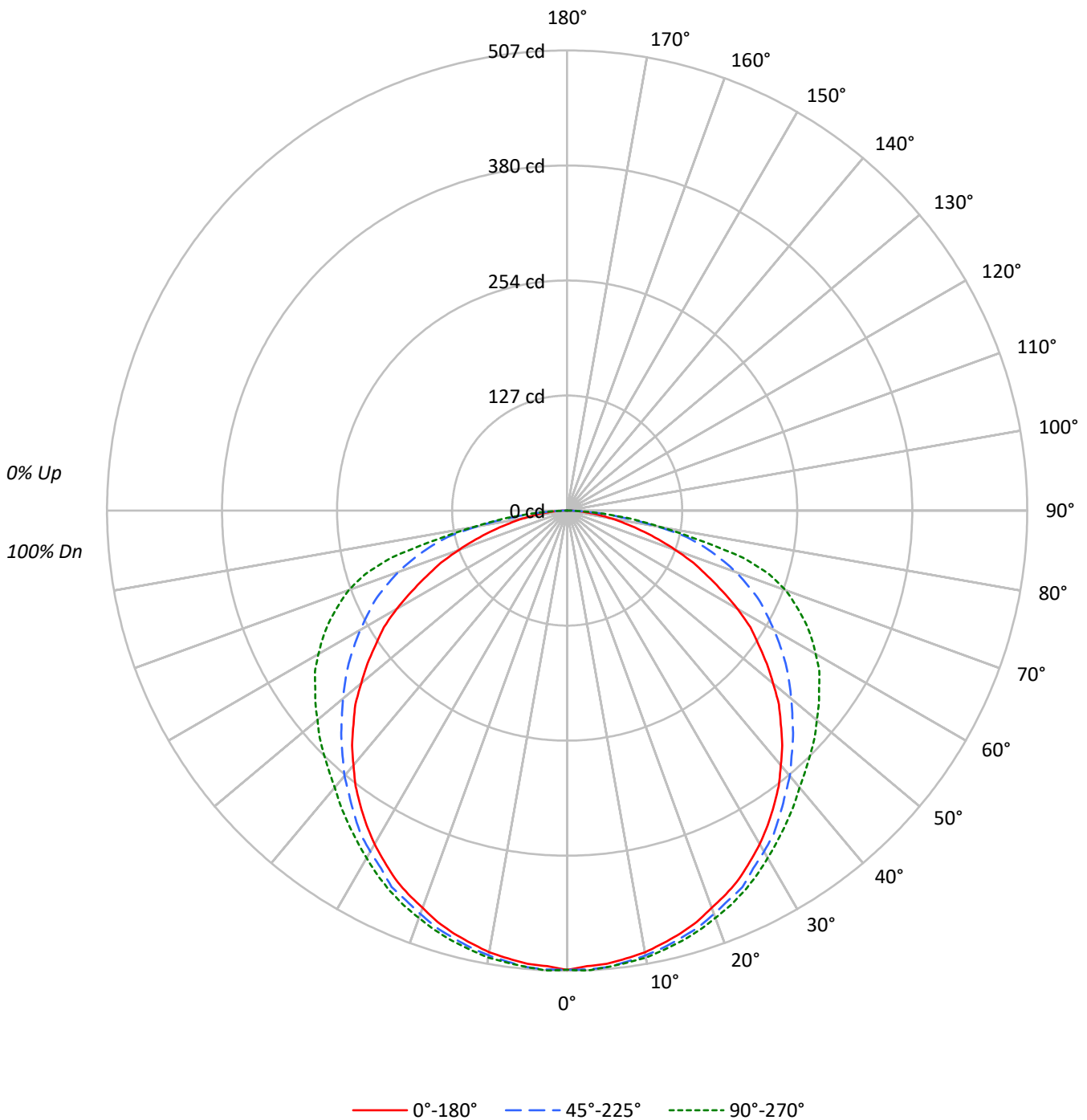
Input Watts (W): 18.414  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1362	1362	1362
5°	1354	1364	1364
10°	1350	1360	1367
15°	1344	1357	1367
20°	1334	1354	1368
25°	1330	1358	1372
30°	1318	1348	1373
35°	1304	1343	1382
40°	1286	1340	1399
45°	1267	1340	1443
50°	1240	1350	1503
55°	1207	1379	1590
60°	1167	1416	1703
65°	1087	1487	1841
70°	998	1557	2014
75°	874	1639	2083
80°	753	1561	1635
85°	658	1133	1244



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.9	3.0
10°-20°	137.4	8.5
20°-30°	209.7	13.0
30°-40°	256.0	15.9
40°-50°	273.8	17.0
50°-60°	264.2	16.4
60°-70°	227.5	14.1
70°-80°	153.9	9.6
80°-90°	40.6	2.5
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°	395.0	24.5
0°-40°	651.0	40.4
0°-60°	1189.0	73.8
0°-90°	1611.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1611.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	501	502	505	505	505	48
15°	482	484	487	490	491	136
25°	448	450	458	460	462	206
35°	397	401	409	417	421	248
45°	333	339	352	370	379	257
55°	257	266	294	324	339	230
65°	171	187	234	270	289	170
75°	84	111	158	190	200	90
85°	21	30	37	38	40	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	506.0	506.0	506.0	506.0	506.0
2.5°	502.5	503.7	506.0	506.0	507.2
5°	501.3	502.5	504.9	504.9	504.9
7.5°	497.7	498.9	501.3	502.5	502.5
10°	494.2	495.4	497.7	498.9	500.1
12.5°	488.3	489.5	493.0	495.4	495.4
15°	482.3	483.5	487.1	489.5	490.6
17.5°	475.2	477.6	481.2	483.5	484.7
20°	465.7	468.1	472.9	476.4	477.6
22.5°	457.5	459.8	464.6	468.1	470.5
25°	448.0	450.3	457.5	459.8	462.2
27.5°	436.1	438.5	444.4	449.2	452.7
30°	424.3	426.6	433.8	439.7	442.0
32.5°	411.2	414.8	423.1	427.8	431.4
35°	397.0	400.6	408.9	417.2	420.7
37.5°	382.8	386.3	394.6	405.3	410.0
40°	366.2	370.9	381.6	395.8	398.2
42.5°	350.8	356.7	366.2	382.8	388.7
45°	333.0	338.9	352.0	369.8	379.2
47.5°	316.4	322.4	336.6	357.9	369.8
50°	296.3	304.6	322.4	347.2	359.1
52.5°	277.3	284.4	308.1	335.4	349.6
55°	257.2	265.5	293.9	323.5	338.9
57.5°	239.4	246.5	278.5	311.7	329.5
60°	216.9	226.4	263.1	298.6	316.4
62.5°	193.2	207.4	247.7	284.4	303.4
65°	170.7	187.2	233.5	270.2	289.2
67.5°	150.5	168.3	215.7	254.8	272.6
70°	126.8	149.3	197.9	235.8	256.0
72.5°	105.5	130.4	177.8	215.7	233.5
75°	84.1	111.4	157.6	189.6	200.3
77.5°	65.2	91.3	135.1	144.6	145.8
80°	48.6	72.3	100.7	101.9	105.5
82.5°	33.2	51.0	65.2	71.1	72.3
85°	21.3	29.6	36.7	37.9	40.3
87.5°	9.5	10.7	13.0	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)