

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: P276840

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276840  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-RDP-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3584.6 lumens  
Efficiency: N/A  
Efficacy: 77.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

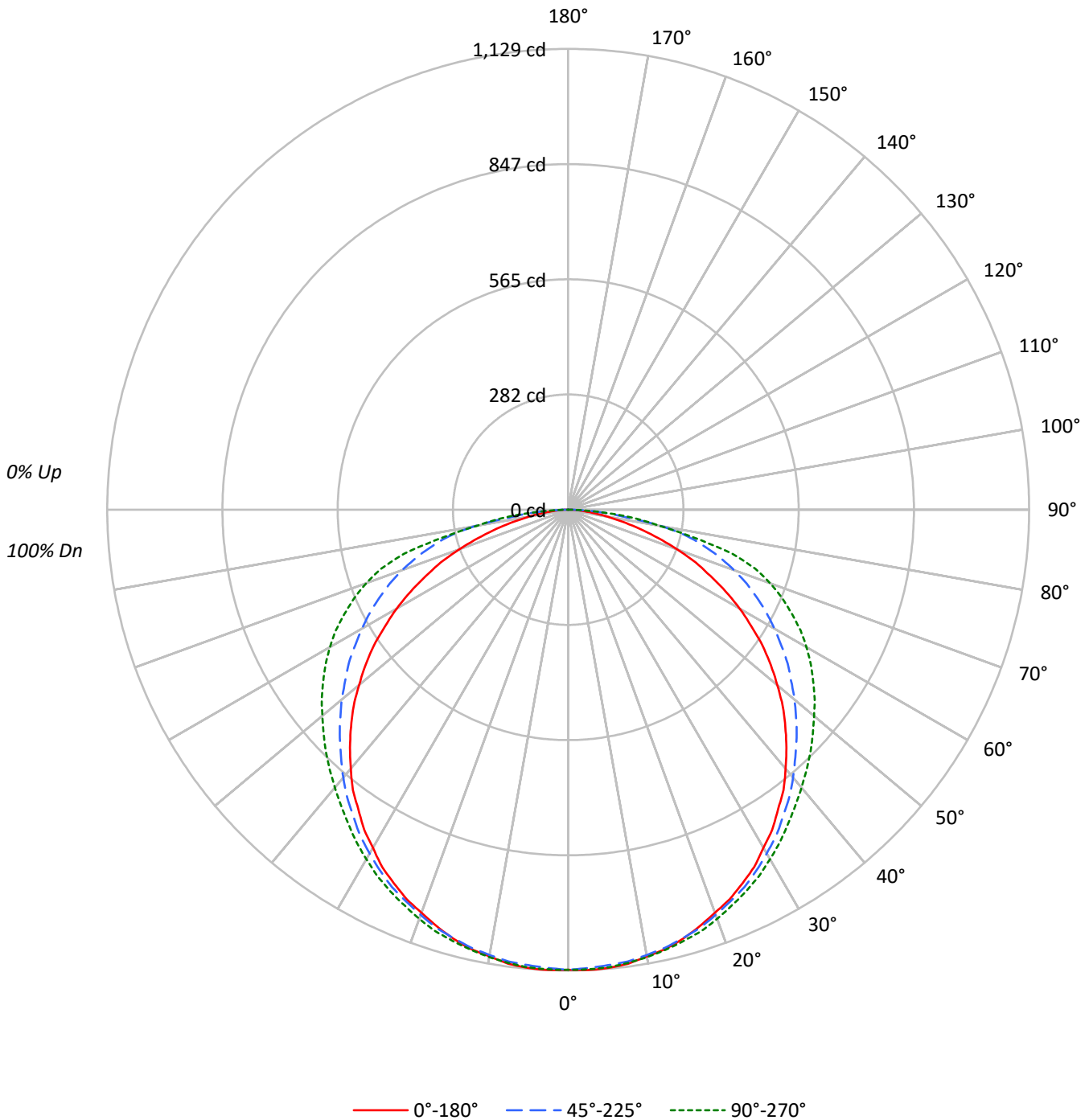
Input Watts (W): 46.127256  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	1517	1517	1517
5°	1522	1513	1520
10°	1518	1513	1521
15°	1516	1513	1523
20°	1505	1512	1527
25°	1499	1515	1531
30°	1486	1511	1536
35°	1472	1507	1542
40°	1455	1505	1561
45°	1431	1506	1597
50°	1399	1515	1645
55°	1364	1539	1718
60°	1306	1569	1813
65°	1223	1625	1925
70°	1112	1699	2070
75°	943	1793	2163
80°	744	1805	1750
85°	550	1372	1538



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.9	3.0
10°-20°	307.7	8.6
20°-30°	470.6	13.1
30°-40°	575.3	16.0
40°-50°	613.2	17.1
50°-60°	586.3	16.4
60°-70°	496.6	13.9
70°-80°	333.8	9.3
80°-90°	94.2	2.6
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°	885.3	24.7
0°-40°	1460.6	40.7
0°-60°	2660.0	74.2
0°-90°	3584.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3584.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1127	1127	1127	1127	1127	
5°	1127	1126	1120	1126	1126	107
15°	1088	1088	1086	1095	1094	307
25°	1010	1013	1021	1029	1031	465
35°	896	903	917	935	939	561
45°	752	764	791	825	839	580
55°	581	603	656	708	732	518
65°	384	423	510	578	604	381
75°	181	247	345	404	416	194
85°	36	73	89	96	100	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1127.2	1127.2	1127.2	1127.2	1127.2
2.5°	1129.0	1129.0	1123.7	1127.2	1127.2
5°	1127.2	1125.5	1120.1	1125.5	1125.5
7.5°	1121.9	1120.1	1116.6	1121.9	1120.1
10°	1111.2	1111.2	1107.7	1113.0	1113.0
12.5°	1102.3	1100.6	1098.8	1105.9	1104.1
15°	1088.1	1088.1	1086.3	1095.2	1093.5
17.5°	1070.3	1072.1	1073.9	1081.0	1082.8
20°	1050.8	1054.3	1056.1	1066.8	1066.8
22.5°	1033.0	1034.8	1038.3	1049.0	1049.0
25°	1009.9	1013.4	1020.6	1029.4	1031.2
27.5°	986.8	988.6	997.4	1009.9	1011.7
30°	956.5	961.9	972.5	986.8	988.6
32.5°	929.9	935.2	947.7	961.9	965.4
35°	896.1	903.2	917.4	935.2	938.8
37.5°	865.9	871.2	889.0	908.5	913.9
40°	828.5	839.2	857.0	880.1	889.0
42.5°	791.2	801.9	823.2	853.4	864.1
45°	752.1	764.5	791.2	825.0	839.2
47.5°	713.0	727.2	757.4	796.5	812.5
50°	668.5	686.3	723.6	768.1	785.9
52.5°	625.8	647.2	688.1	737.9	761.0
55°	581.4	602.7	656.1	707.6	732.5
57.5°	531.6	560.1	618.7	677.4	704.1
60°	485.4	512.1	583.2	647.2	673.9
62.5°	435.6	471.2	547.6	615.2	641.8
65°	384.0	423.2	510.3	577.8	604.5
67.5°	337.8	380.5	472.9	540.5	567.2
70°	282.7	336.0	432.0	499.6	526.3
72.5°	231.1	289.8	389.4	455.2	480.1
75°	181.4	247.1	344.9	403.6	416.0
77.5°	135.1	204.5	298.7	323.6	314.7
80°	96.0	163.6	232.9	220.5	225.8
82.5°	62.2	124.5	144.0	163.6	168.9
85°	35.6	72.9	88.9	96.0	99.6
87.5°	16.0	26.7	35.6	35.6	33.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)