

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: P277078

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L92765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277078  
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-L92765-W2A1-U-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3618.3 lumens  
Efficiency: N/A  
Efficacy: 79.4 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

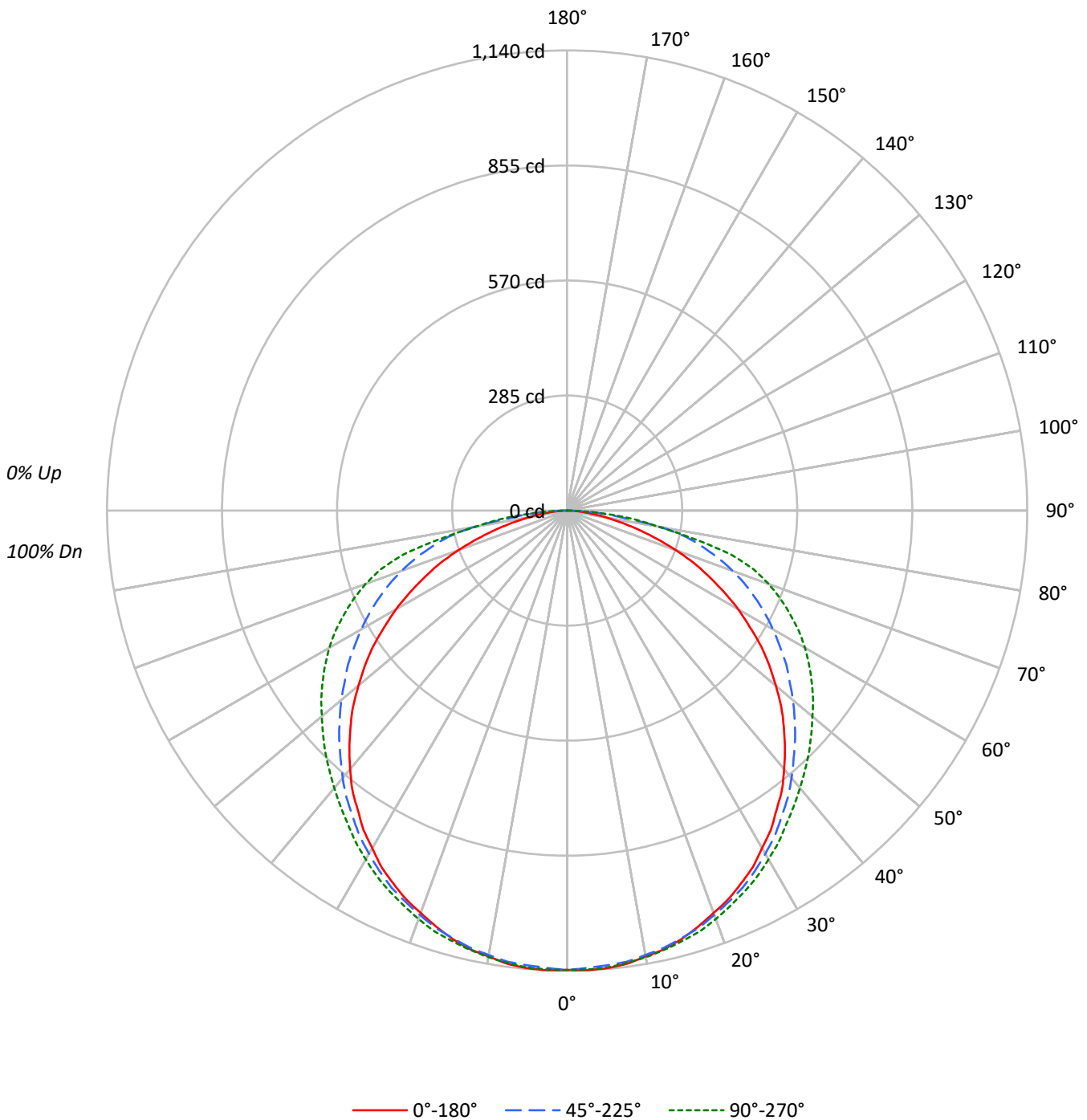
Input Watts (W): 45.57  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1531	1531	1531
5°	1537	1527	1534
10°	1533	1528	1535
15°	1530	1528	1538
20°	1519	1526	1542
25°	1513	1529	1545
30°	1500	1525	1550
35°	1486	1521	1556
40°	1469	1519	1576
45°	1445	1520	1612
50°	1412	1529	1661
55°	1377	1554	1734
60°	1319	1584	1830
65°	1234	1640	1943
70°	1123	1716	2090
75°	952	1810	2183
80°	751	1822	1766
85°	554	1385	1551



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.9	3.0
10°-20°	310.6	8.6
20°-30°	475.0	13.1
30°-40°	580.7	16.0
40°-50°	618.9	17.1
50°-60°	591.8	16.4
60°-70°	501.3	13.9
70°-80°	336.9	9.3
80°-90°	95.0	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°	893.6	24.7
0°-40°	1474.3	40.7
0°-60°	2685.1	74.2
0°-90°	3618.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3618.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1138	1138	1138	1138	1138	
5°	1138	1136	1131	1136	1136	108
15°	1098	1098	1097	1106	1104	310
25°	1019	1023	1030	1039	1041	470
35°	904	912	926	944	948	567
45°	759	772	799	833	847	586
55°	587	608	662	714	739	523
65°	388	427	515	583	610	385
75°	183	250	348	407	420	196
85°	36	74	90	97	100	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1137.9	1137.9	1137.9	1137.9	1137.9
2.5°	1139.7	1139.7	1134.3	1137.9	1137.9
5°	1137.9	1136.1	1130.7	1136.1	1136.1
7.5°	1132.5	1130.7	1127.1	1132.5	1130.7
10°	1121.7	1121.7	1118.1	1123.5	1123.5
12.5°	1112.7	1110.9	1109.1	1116.3	1114.5
15°	1098.4	1098.4	1096.6	1105.6	1103.8
17.5°	1080.4	1082.2	1084.0	1091.2	1093.0
20°	1060.7	1064.3	1066.1	1076.8	1076.8
22.5°	1042.7	1044.5	1048.1	1058.9	1058.9
25°	1019.4	1023.0	1030.2	1039.1	1040.9
27.5°	996.1	997.9	1006.8	1019.4	1021.2
30°	965.6	970.9	981.7	996.1	997.9
32.5°	938.6	944.0	956.6	970.9	974.5
35°	904.5	911.7	926.1	944.0	947.6
37.5°	874.0	879.4	897.4	917.1	922.5
40°	836.3	847.1	865.1	888.4	897.4
42.5°	798.7	809.4	831.0	861.5	872.2
45°	759.2	771.7	798.7	832.8	847.1
47.5°	719.7	734.0	764.6	804.0	820.2
50°	674.8	692.8	730.5	775.3	793.3
52.5°	631.7	653.3	694.6	744.8	768.1
55°	586.9	608.4	662.3	714.3	739.4
57.5°	536.6	565.3	624.6	683.8	710.7
60°	490.0	516.9	588.7	653.3	680.2
62.5°	439.7	475.6	552.8	621.0	647.9
65°	387.7	427.1	515.1	583.3	610.2
67.5°	341.0	384.1	477.4	545.6	572.5
70°	285.4	339.2	436.1	504.3	531.2
72.5°	233.3	292.5	393.0	459.5	484.6
75°	183.1	249.5	348.2	407.4	420.0
77.5°	136.4	206.4	301.5	326.6	317.7
80°	96.9	165.1	235.1	222.5	227.9
82.5°	62.8	125.6	145.4	165.1	170.5
85°	35.9	73.6	89.7	96.9	100.5
87.5°	16.2	26.9	35.9	35.9	34.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)