

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: P277079

Luminaire Tested: **24CZ2-60HE-RDP-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277079  
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-6500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3642.5 lumens  
Efficiency: N/A  
Efficacy: 78.6 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

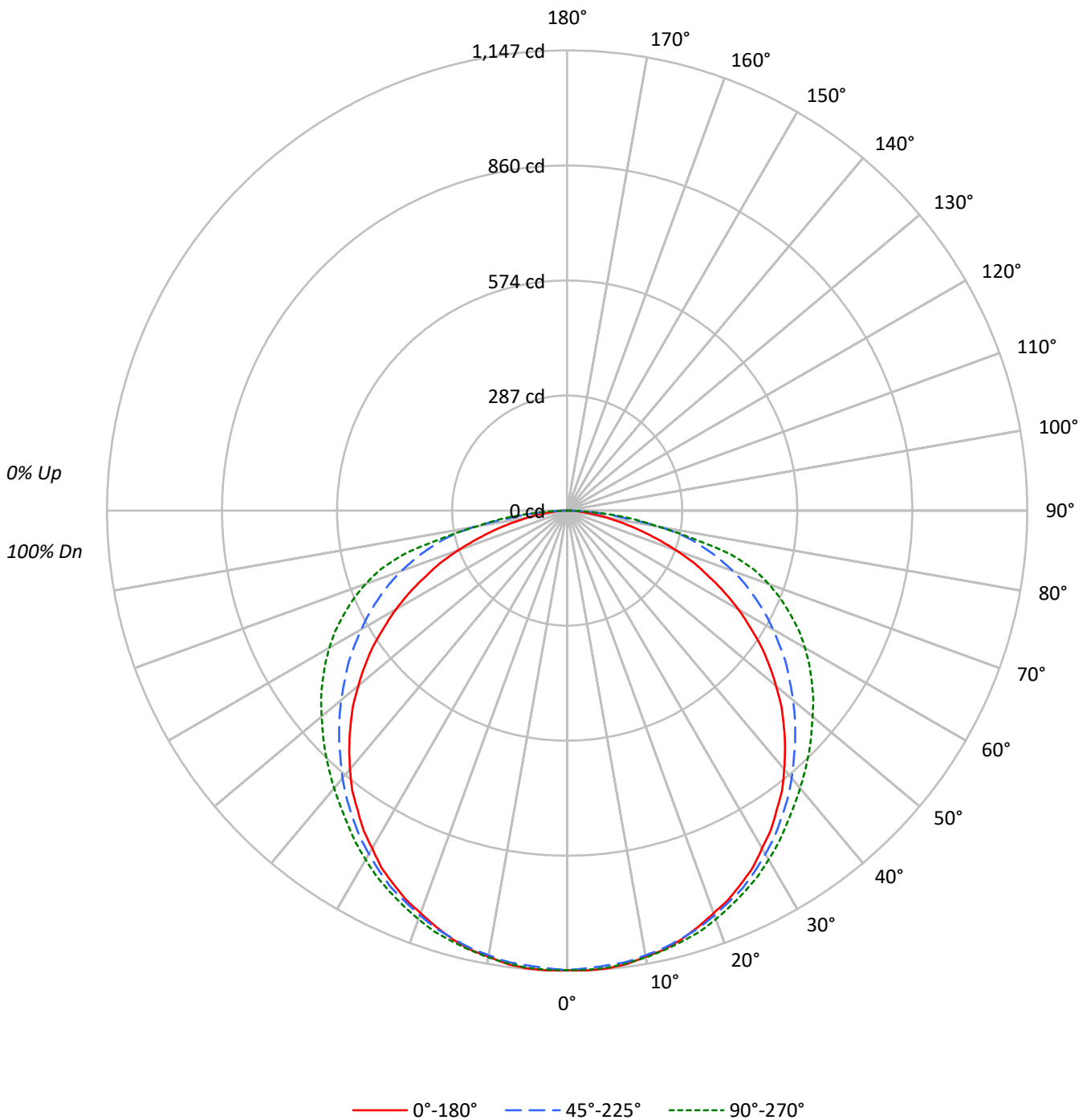
Input Watts (W): 46.314  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1541	1541	1541
5°	1547	1537	1545
10°	1543	1538	1545
15°	1540	1538	1548
20°	1529	1537	1552
25°	1523	1540	1556
30°	1510	1535	1561
35°	1496	1531	1567
40°	1479	1529	1587
45°	1454	1530	1623
50°	1422	1539	1672
55°	1386	1564	1746
60°	1327	1595	1843
65°	1243	1651	1956
70°	1130	1727	2104
75°	958	1822	2198
80°	756	1834	1778
85°	557	1394	1562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.7	3.0
10°-20°	312.7	8.6
20°-30°	478.2	13.1
30°-40°	584.6	16.0
40°-50°	623.1	17.1
50°-60°	595.7	16.4
60°-70°	504.7	13.9
70°-80°	339.2	9.3
80°-90°	95.7	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°	899.6	24.7
0°-40°	1484.2	40.7
0°-60°	2703.0	74.2
0°-90°	3642.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3642.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1146	1146	1146	1146	1146	
5°	1146	1144	1138	1144	1144	109
15°	1106	1106	1104	1113	1111	312
25°	1026	1030	1037	1046	1048	473
35°	911	918	932	950	954	570
45°	764	777	804	838	853	589
55°	591	612	667	719	744	526
65°	390	430	518	587	614	387
75°	184	251	350	410	423	197
85°	36	74	90	98	101	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1145.5	1145.5	1145.5	1145.5	1145.5
2.5°	1147.3	1147.3	1141.8	1145.5	1145.5
5°	1145.5	1143.7	1138.2	1143.7	1143.7
7.5°	1140.0	1138.2	1134.6	1140.0	1138.2
10°	1129.2	1129.2	1125.6	1131.0	1131.0
12.5°	1120.2	1118.4	1116.6	1123.8	1122.0
15°	1105.7	1105.7	1103.9	1112.9	1111.1
17.5°	1087.6	1089.5	1091.3	1098.5	1100.3
20°	1067.8	1071.4	1073.2	1084.0	1084.0
22.5°	1049.7	1051.5	1055.1	1066.0	1066.0
25°	1026.2	1029.8	1037.1	1046.1	1047.9
27.5°	1002.7	1004.5	1013.6	1026.2	1028.0
30°	972.0	977.4	988.3	1002.7	1004.5
32.5°	944.9	950.3	963.0	977.4	981.1
35°	910.6	917.8	932.3	950.3	953.9
37.5°	879.9	885.3	903.4	923.2	928.7
40°	841.9	852.8	870.8	894.3	903.4
42.5°	804.0	814.8	836.5	867.2	878.1
45°	764.2	776.9	804.0	838.3	852.8
47.5°	724.5	738.9	769.7	809.4	825.7
50°	679.3	697.4	735.3	780.5	798.6
52.5°	636.0	657.6	699.2	749.8	773.3
55°	590.8	612.5	666.7	719.1	744.4
57.5°	540.2	569.1	628.7	688.4	715.5
60°	493.2	520.3	592.6	657.6	684.7
62.5°	442.6	478.8	556.5	625.1	652.2
65°	390.3	430.0	518.5	587.2	614.3
67.5°	343.3	386.6	480.6	549.2	576.3
70°	287.3	341.5	439.0	507.7	534.8
72.5°	234.9	294.5	395.7	462.5	487.8
75°	184.3	251.1	350.5	410.1	422.8
77.5°	137.3	207.8	303.5	328.8	319.8
80°	97.6	166.2	236.7	224.0	229.5
82.5°	63.2	126.5	146.3	166.2	171.6
85°	36.1	74.1	90.3	97.6	101.2
87.5°	16.3	27.1	36.1	36.1	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)