

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: P276921

Luminaire Tested: **24CZ2-50HE-RDP-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276921  
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: 24CZ2-50HE-RDP-UNV-L82765-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3192.0 lumens  
Efficiency: N/A  
Efficacy: 88.5 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

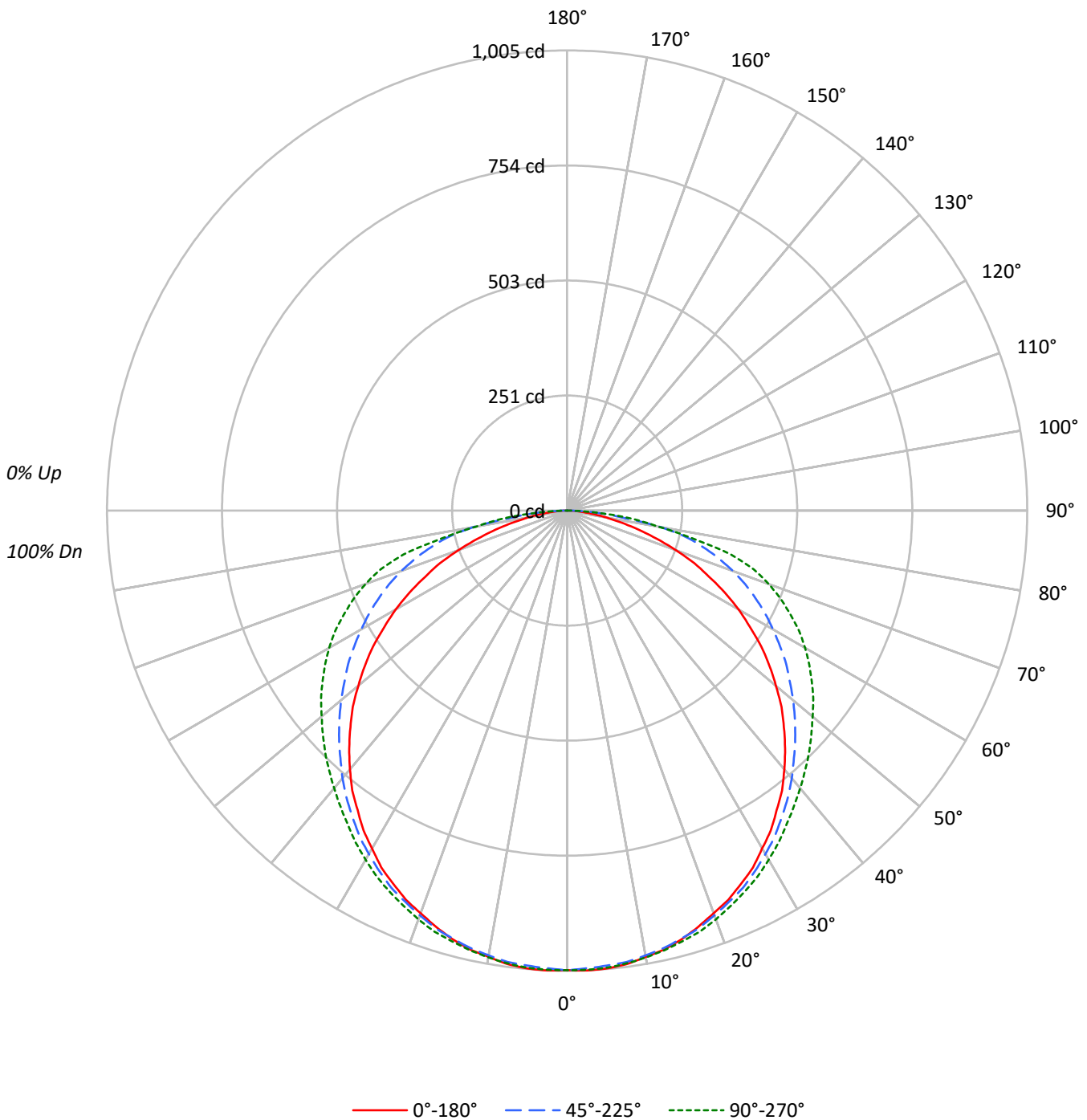
Input Watts (W): 36.084  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1351	1351	1351
5°	1356	1347	1354
10°	1352	1348	1354
15°	1350	1348	1356
20°	1340	1347	1360
25°	1335	1349	1363
30°	1323	1346	1368
35°	1311	1342	1373
40°	1296	1340	1390
45°	1274	1341	1422
50°	1246	1349	1465
55°	1214	1370	1530
60°	1163	1397	1615
65°	1089	1447	1714
70°	990	1513	1844
75°	840	1597	1926
80°	662	1607	1558
85°	489	1223	1369



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	3.0
10°-20°	274.0	8.6
20°-30°	419.1	13.1
30°-40°	512.3	16.0
40°-50°	546.0	17.1
50°-60°	522.0	16.4
60°-70°	442.3	13.9
70°-80°	297.2	9.3
80°-90°	83.8	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°	788.3	24.7
0°-40°	1300.6	40.7
0°-60°	2368.7	74.2
0°-90°	3192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3192.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1004	1004	1004	1004	1004	
5°	1004	1002	998	1002	1002	95
15°	969	969	967	975	974	273
25°	899	902	909	917	918	414
35°	798	804	817	833	836	500
45°	670	681	705	735	747	517
55°	518	537	584	630	652	461
65°	342	377	454	515	538	340
75°	162	220	307	359	370	173
85°	32	65	79	86	89	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1003.8	1003.8	1003.8	1003.8	1003.8
2.5°	1005.4	1005.4	1000.6	1003.8	1003.8
5°	1003.8	1002.2	997.5	1002.2	1002.2
7.5°	999.1	997.5	994.3	999.1	997.5
10°	989.6	989.6	986.4	991.1	991.1
12.5°	981.6	980.1	978.5	984.8	983.2
15°	969.0	969.0	967.4	975.3	973.7
17.5°	953.1	954.7	956.3	962.6	964.2
20°	935.7	938.9	940.5	950.0	950.0
22.5°	919.9	921.5	924.6	934.1	934.1
25°	899.3	902.5	908.8	916.7	918.3
27.5°	878.7	880.3	888.2	899.3	900.9
30°	851.8	856.6	866.1	878.7	880.3
32.5°	828.1	832.8	843.9	856.6	859.7
35°	798.0	804.3	817.0	832.8	836.0
37.5°	771.1	775.8	791.6	809.1	813.8
40°	737.8	747.3	763.1	783.7	791.6
42.5°	704.6	714.1	733.1	760.0	769.5
45°	669.7	680.8	704.6	734.6	747.3
47.5°	634.9	647.6	674.5	709.3	723.6
50°	595.3	611.1	644.4	684.0	699.8
52.5°	557.3	576.3	612.7	657.1	677.6
55°	517.7	536.7	584.2	630.1	652.3
57.5°	473.4	498.7	551.0	603.2	627.0
60°	432.2	456.0	519.3	576.3	600.1
62.5°	387.9	419.6	487.7	547.8	571.6
65°	342.0	376.8	454.4	514.6	538.3
67.5°	300.8	338.8	421.2	481.3	505.1
70°	251.7	299.2	384.7	444.9	468.7
72.5°	205.8	258.1	346.7	405.3	427.5
75°	161.5	220.1	307.2	359.4	370.5
77.5°	120.3	182.1	266.0	288.2	280.2
80°	85.5	145.7	207.4	196.3	201.1
82.5°	55.4	110.8	128.2	145.7	150.4
85°	31.7	64.9	79.2	85.5	88.7
87.5°	14.2	23.7	31.7	31.7	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)