

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: P277012

Luminaire Tested: **24CZ2-50-RDP-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277012  
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: 24CZ2-50-RDP-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 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: 3232.8 lumens  
Efficiency: N/A  
Efficacy: 79.9 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

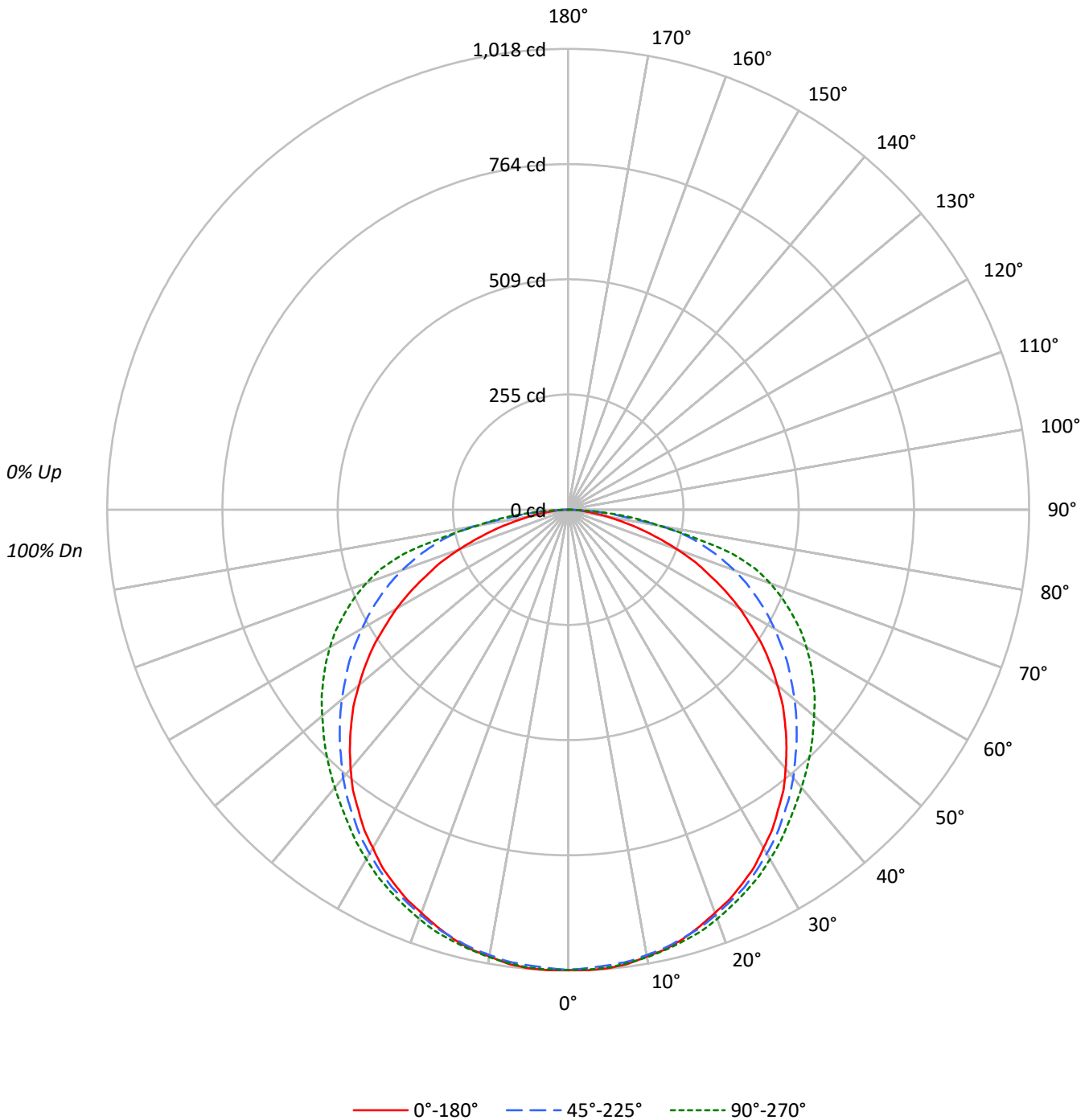
Input Watts (W): 40.455  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1368	1368	1368
5°	1373	1364	1371
10°	1369	1365	1371
15°	1367	1365	1374
20°	1357	1364	1378
25°	1352	1366	1381
30°	1340	1363	1385
35°	1328	1359	1391
40°	1312	1358	1408
45°	1291	1358	1440
50°	1262	1366	1483
55°	1230	1388	1550
60°	1178	1415	1635
65°	1103	1465	1736
70°	1003	1533	1867
75°	850	1617	1951
80°	671	1628	1578
85°	496	1238	1386



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	3.0
10°-20°	277.5	8.6
20°-30°	424.4	13.1
30°-40°	518.8	16.0
40°-50°	553.0	17.1
50°-60°	528.7	16.4
60°-70°	447.9	13.9
70°-80°	301.0	9.3
80°-90°	84.9	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°	798.4	24.7
0°-40°	1317.2	40.7
0°-60°	2398.9	74.2
0°-90°	3232.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3232.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1017	1015	1010	1015	1015	97
15°	981	981	980	988	986	277
25°	911	914	920	928	930	420
35°	808	815	827	843	847	506
45°	678	690	714	744	757	523
55°	524	544	592	638	661	467
65°	346	382	460	521	545	344
75°	164	223	311	364	375	175
85°	32	66	80	87	90	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1016.6	1016.6	1016.6	1016.6	1016.6
2.5°	1018.2	1018.2	1013.4	1016.6	1016.6
5°	1016.6	1015.0	1010.2	1015.0	1015.0
7.5°	1011.8	1010.2	1007.0	1011.8	1010.2
10°	1002.2	1002.2	999.0	1003.8	1003.8
12.5°	994.2	992.6	991.0	997.4	995.8
15°	981.3	981.3	979.7	987.7	986.1
17.5°	965.3	966.9	968.5	974.9	976.5
20°	947.7	950.9	952.5	962.1	962.1
22.5°	931.6	933.2	936.4	946.1	946.1
25°	910.8	914.0	920.4	928.4	930.0
27.5°	889.9	891.5	899.6	910.8	912.4
30°	862.7	867.5	877.1	889.9	891.5
32.5°	838.6	843.4	854.7	867.5	870.7
35°	808.2	814.6	827.4	843.4	846.6
37.5°	780.9	785.7	801.7	819.4	824.2
40°	747.2	756.8	772.9	793.7	801.7
42.5°	713.6	723.2	742.4	769.7	779.3
45°	678.3	689.5	713.6	744.0	756.8
47.5°	643.0	655.8	683.1	718.4	732.8
50°	602.9	618.9	652.6	692.7	708.7
52.5°	564.4	583.7	620.5	665.4	686.3
55°	524.3	543.6	591.7	638.2	660.6
57.5°	479.4	505.1	558.0	610.9	635.0
60°	437.8	461.8	525.9	583.7	607.7
62.5°	392.9	424.9	493.9	554.8	578.9
65°	346.4	381.6	460.2	521.1	545.2
67.5°	304.7	343.1	426.5	487.5	511.5
70°	255.0	303.1	389.6	450.6	474.6
72.5°	208.5	261.4	351.2	410.5	432.9
75°	163.6	222.9	311.1	364.0	375.2
77.5°	121.9	184.4	269.4	291.8	283.8
80°	86.6	147.5	210.1	198.8	203.6
82.5°	56.1	112.2	129.9	147.5	152.3
85°	32.1	65.7	80.2	86.6	89.8
87.5°	14.4	24.1	32.1	32.1	30.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)