

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: P275980

Luminaire Tested: **24CZ2-40HE-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275980  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40HE-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3598.7 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

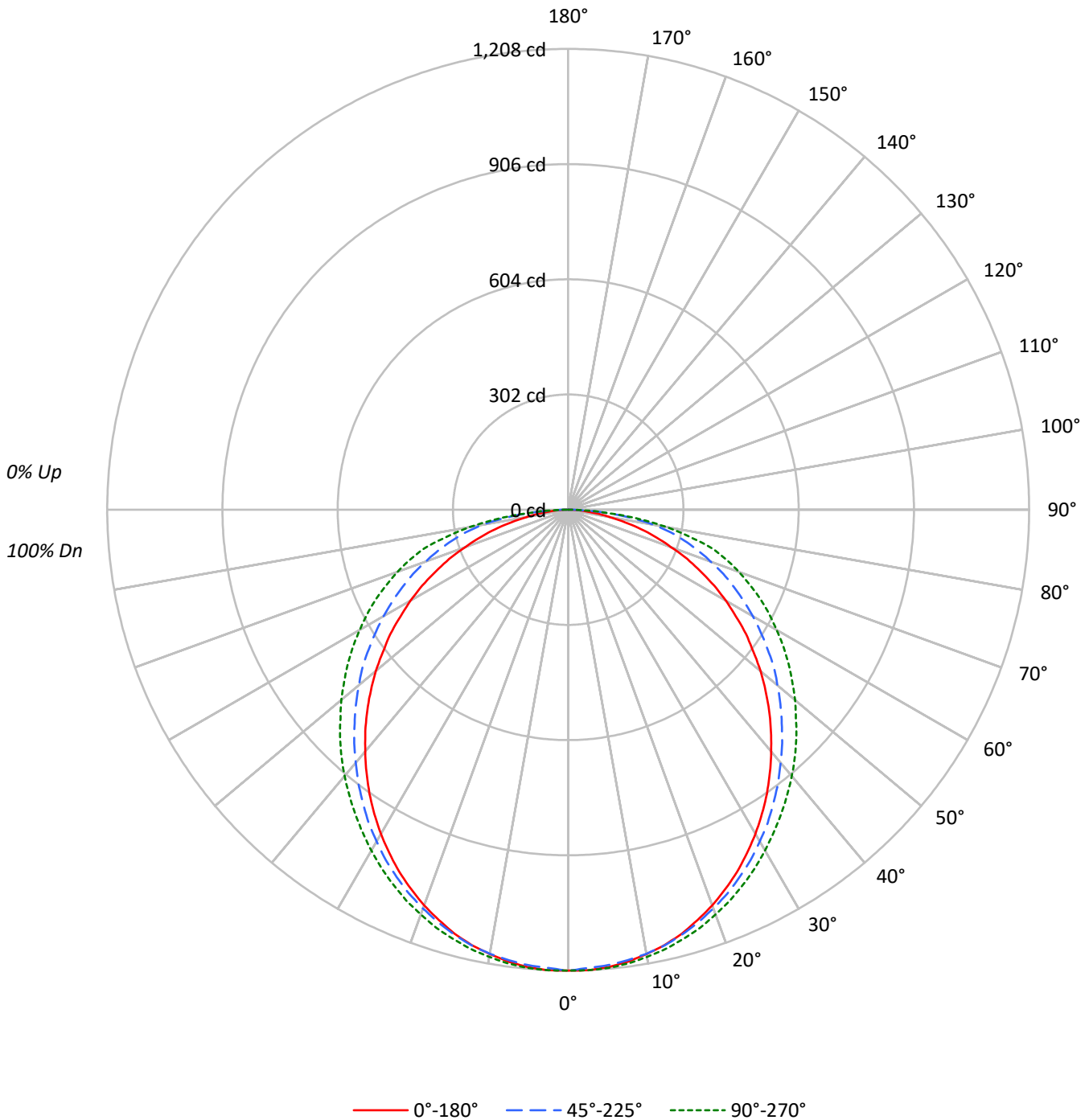
Input Watts (W): 29.459424  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1626	1626	1626
5°	1625	1619	1629
10°	1616	1615	1626
15°	1603	1606	1623
20°	1580	1592	1617
25°	1555	1578	1610
30°	1525	1560	1603
35°	1491	1541	1598
40°	1453	1521	1601
45°	1417	1506	1609
50°	1378	1498	1624
55°	1335	1496	1654
60°	1283	1503	1697
65°	1216	1526	1770
70°	1129	1564	1871
75°	1030	1642	2029
80°	847	1768	2029
85°	648	1632	1743



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.3	3.2
10°-20°	326.2	9.1
20°-30°	490.9	13.6
30°-40°	588.3	16.3
40°-50°	613.1	17.0
50°-60°	570.4	15.9
60°-70°	469.8	13.1
70°-80°	320.0	8.9
80°-90°	105.6	2.9
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°	931.5	25.9
0°-40°	1519.8	42.2
0°-60°	2703.3	75.1
0°-90°	3598.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3598.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1208	1208	1208	1208	1208	
5°	1204	1204	1199	1205	1206	114
15°	1151	1152	1153	1164	1165	324
25°	1047	1052	1063	1081	1085	482
35°	908	919	938	963	973	568
45°	745	760	792	831	846	574
55°	569	588	638	688	705	507
65°	382	414	479	536	556	379
75°	198	243	316	372	390	209
85°	42	82	106	113	113	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1208.3	1208.3	1208.3	1208.3	1208.3
2.5°	1208.3	1208.3	1202.3	1208.3	1208.3
5°	1203.5	1203.5	1198.7	1204.7	1205.9
7.5°	1195.1	1196.3	1191.5	1198.7	1199.9
10°	1183.0	1184.2	1181.8	1189.1	1190.3
12.5°	1168.6	1169.8	1169.8	1178.2	1179.4
15°	1150.6	1151.8	1153.0	1163.8	1165.0
17.5°	1127.8	1131.4	1133.8	1147.0	1149.4
20°	1103.8	1107.4	1112.2	1126.6	1129.0
22.5°	1076.2	1081.0	1089.4	1105.0	1108.6
25°	1047.3	1052.1	1062.9	1081.0	1084.6
27.5°	1014.9	1022.1	1035.3	1054.5	1059.3
30°	981.3	988.5	1004.1	1024.5	1031.7
32.5°	945.2	954.8	972.9	995.7	1002.9
35°	908.0	918.8	938.0	963.3	972.9
37.5°	868.4	880.4	903.2	930.8	942.8
40°	827.5	841.9	866.0	898.4	911.6
42.5°	786.7	799.9	829.9	864.8	879.2
45°	744.7	760.3	791.5	831.1	845.5
47.5°	701.4	717.0	754.3	796.3	809.5
50°	658.2	673.8	715.8	760.3	775.9
52.5°	611.3	631.8	679.8	724.2	739.9
55°	569.3	588.5	637.8	688.2	705.0
57.5°	521.3	544.1	598.1	651.0	669.0
60°	476.8	500.8	558.5	612.5	630.6
62.5°	431.2	457.6	518.9	574.1	594.5
65°	381.9	414.4	479.2	535.7	556.1
67.5°	337.5	371.1	439.6	497.2	515.3
70°	287.1	327.9	397.6	455.2	475.6
72.5°	243.8	284.7	357.9	414.4	434.8
75°	198.2	242.6	315.9	372.3	390.3
77.5°	152.5	201.8	275.0	318.3	324.3
80°	109.3	160.9	228.2	253.4	261.8
82.5°	76.9	123.7	168.1	185.0	189.8
85°	42.0	81.7	105.7	112.9	112.9
87.5°	18.0	34.8	42.0	43.2	44.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)