

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: P276154

Luminaire Tested: **24CZ2-40-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276154  
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: 24CZ2-40-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3889.9 lumens  
Efficiency: N/A  
Efficacy: 125.6 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

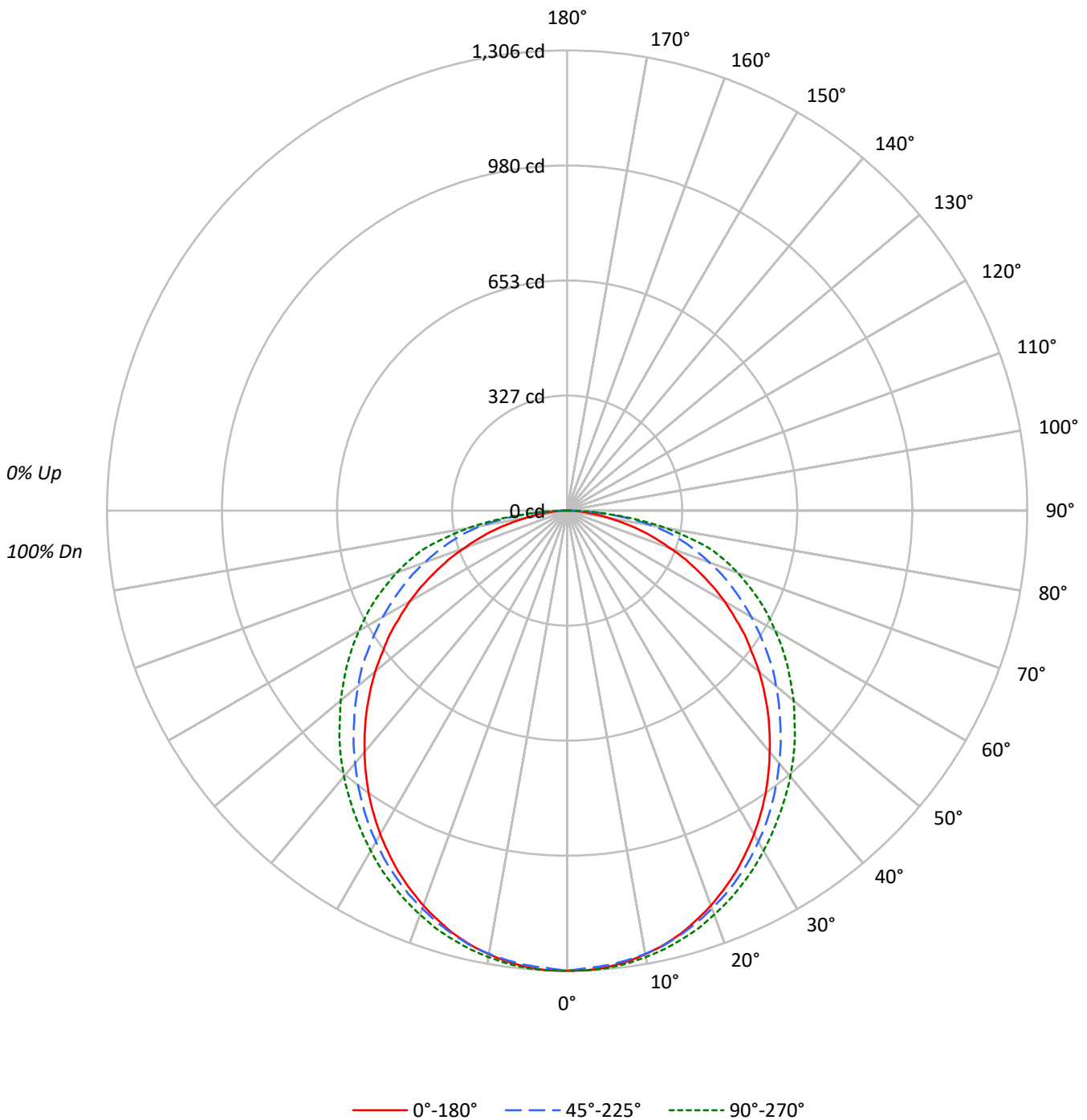
Input Watts (W): 30.969  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20																		
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	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°	1757	1757	1757
5°	1757	1750	1760
10°	1747	1745	1758
15°	1732	1736	1754
20°	1708	1721	1747
25°	1681	1706	1740
30°	1648	1686	1733
35°	1612	1665	1727
40°	1571	1644	1731
45°	1532	1628	1739
50°	1489	1620	1756
55°	1444	1617	1788
60°	1387	1625	1834
65°	1314	1649	1914
70°	1221	1690	2022
75°	1114	1775	2193
80°	915	1912	2193
85°	701	1763	1883



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.5	3.2
10°-20°	352.6	9.1
20°-30°	530.7	13.6
30°-40°	635.9	16.3
40°-50°	662.7	17.0
50°-60°	616.6	15.9
60°-70°	507.8	13.1
70°-80°	345.9	8.9
80°-90°	114.2	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°	1006.8	25.9
0°-40°	1642.8	42.2
0°-60°	2922.1	75.1
0°-90°	3889.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3889.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1306	1306	1306	1306	1306	
5°	1301	1301	1296	1302	1303	123
15°	1244	1245	1246	1258	1259	350
25°	1132	1137	1149	1168	1172	521
35°	982	993	1014	1041	1052	614
45°	805	822	856	898	914	621
55°	615	636	689	744	762	549
65°	413	448	518	579	601	410
75°	214	262	341	402	422	226
85°	45	88	114	122	122	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1306.0	1306.0	1306.0	1306.0	1306.0
2.5°	1306.0	1306.0	1299.5	1306.0	1306.0
5°	1300.8	1300.8	1295.7	1302.1	1303.4
7.5°	1291.8	1293.1	1287.9	1295.7	1297.0
10°	1278.8	1280.1	1277.5	1285.3	1286.6
12.5°	1263.2	1264.5	1264.5	1273.6	1274.9
15°	1243.7	1245.0	1246.3	1258.0	1259.3
17.5°	1219.1	1222.9	1225.5	1239.8	1242.4
20°	1193.1	1197.0	1202.2	1217.8	1220.4
22.5°	1163.2	1168.4	1177.5	1194.4	1198.3
25°	1132.1	1137.3	1148.9	1168.4	1172.3
27.5°	1097.0	1104.8	1119.1	1139.9	1145.1
30°	1060.7	1068.5	1085.3	1107.4	1115.2
32.5°	1021.7	1032.1	1051.6	1076.2	1084.0
35°	981.5	993.2	1013.9	1041.2	1051.6
37.5°	938.6	951.6	976.3	1006.1	1019.1
40°	894.5	910.1	936.0	971.1	985.4
42.5°	850.4	864.6	897.1	934.7	950.3
45°	804.9	821.8	855.5	898.4	914.0
47.5°	758.2	775.1	815.3	860.7	875.0
50°	711.4	728.3	773.8	821.8	838.7
52.5°	660.8	682.9	734.8	782.8	799.7
55°	615.4	636.1	689.4	743.9	762.1
57.5°	563.4	588.1	646.5	703.7	723.1
60°	515.4	541.4	603.7	662.1	681.6
62.5°	466.1	494.6	560.8	620.6	642.6
65°	412.8	447.9	518.0	579.0	601.1
67.5°	364.8	401.2	475.2	537.5	556.9
70°	310.3	354.4	429.7	492.0	514.1
72.5°	263.5	307.7	386.9	447.9	470.0
75°	214.2	262.2	341.4	402.5	421.9
77.5°	164.9	218.1	297.3	344.0	350.5
80°	118.1	174.0	246.7	273.9	283.0
82.5°	83.1	133.7	181.8	199.9	205.1
85°	45.4	88.3	114.2	122.0	122.0
87.5°	19.5	37.6	45.4	46.7	48.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)