

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: P276296

Luminaire Tested: **24CZ2-45-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276296  
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: 24CZ2-45-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3668.6 lumens  
Efficiency: N/A  
Efficacy: 104.6 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

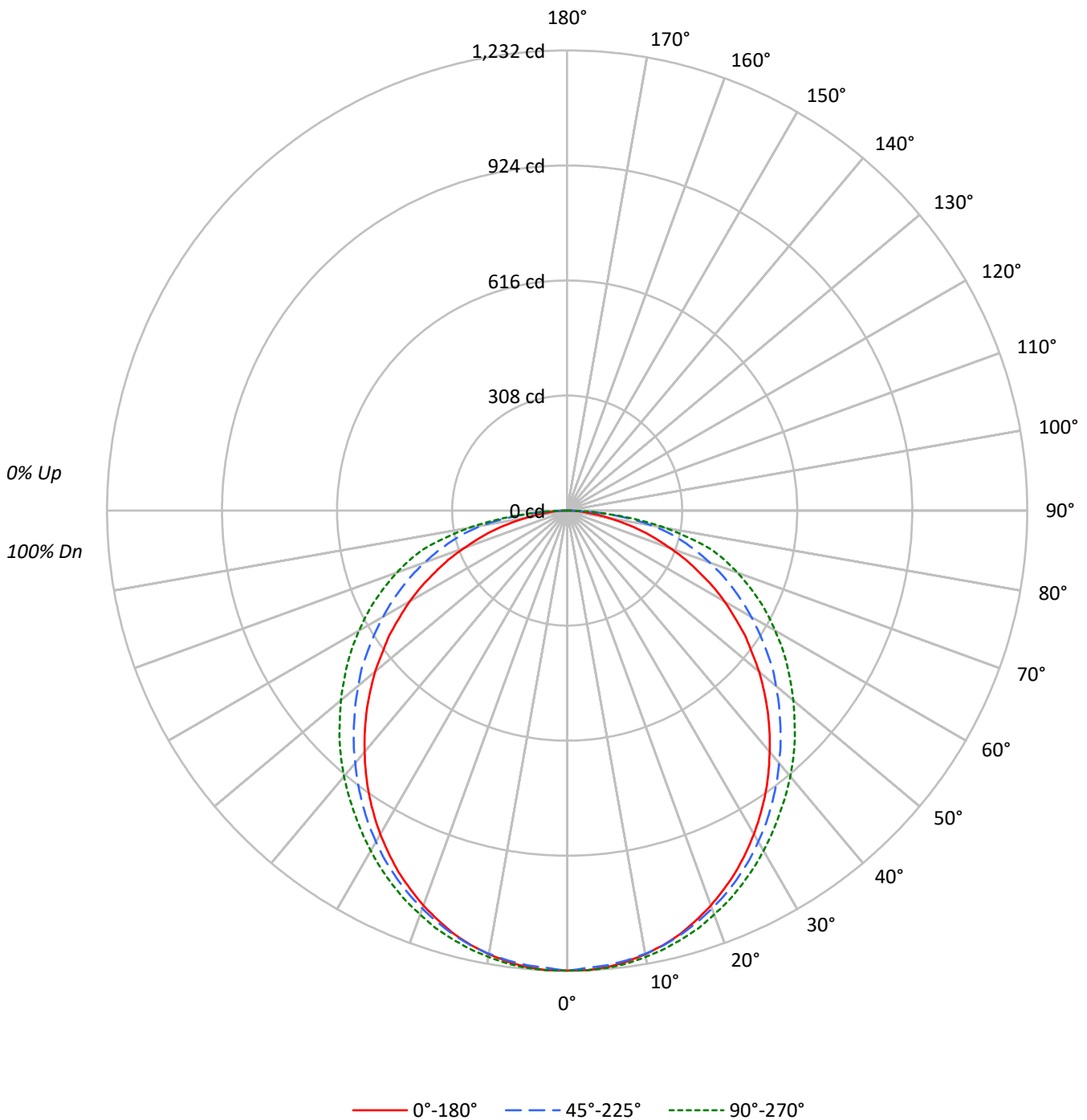
Input Watts (W): 35.061  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1657	1657	1657
5°	1657	1650	1660
10°	1648	1646	1658
15°	1634	1637	1654
20°	1611	1623	1648
25°	1585	1609	1641
30°	1554	1590	1634
35°	1520	1571	1629
40°	1482	1551	1632
45°	1444	1535	1640
50°	1405	1527	1656
55°	1361	1525	1686
60°	1308	1532	1730
65°	1239	1555	1805
70°	1151	1594	1908
75°	1050	1674	2069
80°	863	1802	2068
85°	662	1663	1777



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.5	3.2
10°-20°	332.6	9.1
20°-30°	500.5	13.6
30°-40°	599.8	16.3
40°-50°	625.0	17.0
50°-60°	581.5	15.9
60°-70°	478.9	13.1
70°-80°	326.2	8.9
80°-90°	107.7	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°	949.5	25.9
0°-40°	1549.3	42.2
0°-60°	2755.8	75.1
0°-90°	3668.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3668.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1232	1232	1232	1232	1232	
5°	1227	1227	1222	1228	1229	116
15°	1173	1174	1175	1186	1188	330
25°	1068	1072	1084	1102	1106	491
35°	926	937	956	982	992	579
45°	759	775	807	847	862	585
55°	580	600	650	702	719	517
65°	389	422	488	546	567	386
75°	202	247	322	380	398	213
85°	43	83	108	115	115	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1231.7	1231.7	1231.7	1231.7	1231.7
2.5°	1231.7	1231.7	1225.6	1231.7	1231.7
5°	1226.8	1226.8	1221.9	1228.0	1229.3
7.5°	1218.2	1219.5	1214.6	1221.9	1223.1
10°	1206.0	1207.2	1204.8	1212.1	1213.4
12.5°	1191.3	1192.5	1192.5	1201.1	1202.3
15°	1172.9	1174.2	1175.4	1186.4	1187.6
17.5°	1149.7	1153.4	1155.8	1169.3	1171.7
20°	1125.2	1128.9	1133.8	1148.5	1150.9
22.5°	1097.0	1101.9	1110.5	1126.4	1130.1
25°	1067.7	1072.5	1083.6	1101.9	1105.6
27.5°	1034.6	1041.9	1055.4	1075.0	1079.9
30°	1000.3	1007.7	1023.6	1044.4	1051.7
32.5°	963.6	973.4	991.7	1015.0	1022.3
35°	925.6	936.6	956.2	981.9	991.7
37.5°	885.2	897.5	920.7	948.9	961.1
40°	843.6	858.3	882.8	915.8	929.3
42.5°	802.0	815.4	846.0	881.5	896.2
45°	759.1	775.0	806.9	847.3	862.0
47.5°	715.0	730.9	768.9	811.8	825.2
50°	671.0	686.9	729.7	775.0	790.9
52.5°	623.2	644.0	693.0	738.3	754.2
55°	580.4	599.9	650.1	701.6	718.7
57.5°	531.4	554.6	609.7	663.6	682.0
60°	486.1	510.6	569.3	624.4	642.8
62.5°	439.5	466.5	528.9	585.2	606.1
65°	389.3	422.4	488.5	546.1	566.9
67.5°	344.0	378.3	448.1	506.9	525.3
70°	292.6	334.3	405.3	464.0	484.9
72.5°	248.5	290.2	364.9	422.4	443.2
75°	202.0	247.3	322.0	379.6	397.9
77.5°	155.5	205.7	280.4	324.5	330.6
80°	111.4	164.1	232.6	258.3	266.9
82.5°	78.4	126.1	171.4	188.6	193.5
85°	42.9	83.3	107.7	115.1	115.1
87.5°	18.4	35.5	42.9	44.1	45.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)