

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: P275907

Luminaire Tested: **24CZ2-45HE-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275907  
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: 24CZ2-45HE-UNV-L83050-W2A1-U-3000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4009.0 lumens  
Efficiency: N/A  
Efficacy: 127.9 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

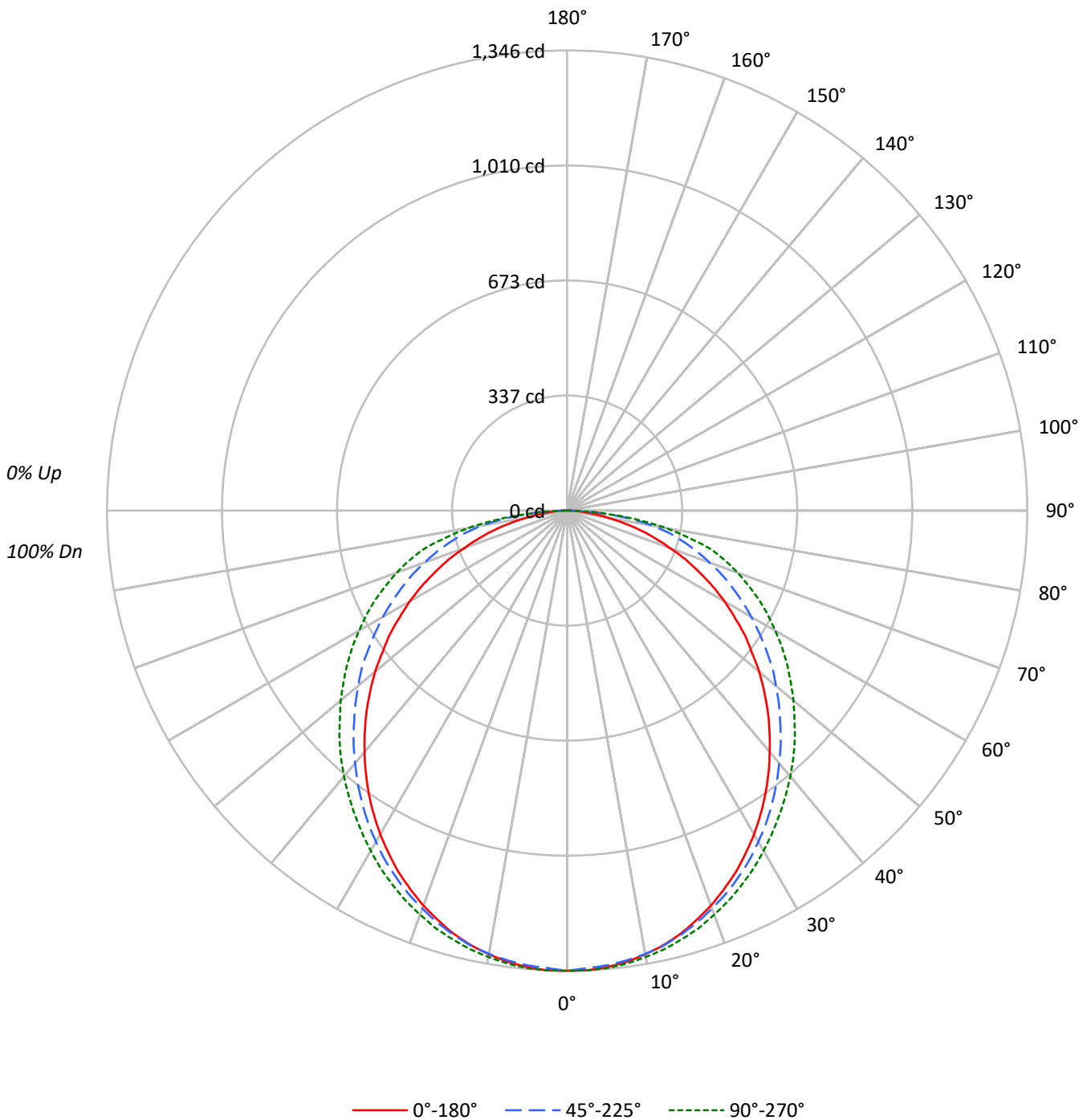
Input Watts (W): 31.341  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1811	1811	1811
5°	1811	1803	1814
10°	1801	1799	1812
15°	1785	1789	1808
20°	1761	1774	1801
25°	1732	1758	1794
30°	1698	1738	1786
35°	1661	1716	1780
40°	1619	1694	1784
45°	1578	1678	1792
50°	1535	1669	1809
55°	1488	1667	1842
60°	1429	1674	1890
65°	1355	1700	1972
70°	1258	1742	2084
75°	1148	1829	2260
80°	944	1970	2260
85°	722	1817	1942



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.3	3.2
10°-20°	363.4	9.1
20°-30°	546.9	13.6
30°-40°	655.4	16.3
40°-50°	683.0	17.0
50°-60°	635.5	15.9
60°-70°	523.4	13.1
70°-80°	356.5	8.9
80°-90°	117.7	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°	1037.6	25.9
0°-40°	1693.1	42.2
0°-60°	3011.5	75.1
0°-90°	4009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4009.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1341	1341	1335	1342	1343	127
15°	1282	1283	1284	1296	1298	361
25°	1167	1172	1184	1204	1208	537
35°	1012	1024	1045	1073	1084	632
45°	830	847	882	926	942	640
55°	634	656	710	767	785	565
65°	426	462	534	597	620	422
75°	221	270	352	415	435	233
85°	47	91	118	126	126	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1346.0	1346.0	1346.0	1346.0	1346.0
2.5°	1346.0	1346.0	1339.3	1346.0	1346.0
5°	1340.7	1340.7	1335.3	1342.0	1343.3
7.5°	1331.3	1332.6	1327.3	1335.3	1336.6
10°	1317.9	1319.2	1316.6	1324.6	1325.9
12.5°	1301.9	1303.2	1303.2	1312.6	1313.9
15°	1281.8	1283.1	1284.5	1296.5	1297.8
17.5°	1256.4	1260.4	1263.1	1277.8	1280.4
20°	1229.6	1233.6	1239.0	1255.0	1257.7
22.5°	1198.8	1204.2	1213.5	1230.9	1235.0
25°	1166.7	1172.1	1184.1	1204.2	1208.2
27.5°	1130.6	1138.6	1153.3	1174.7	1180.1
30°	1093.1	1101.2	1118.6	1141.3	1149.3
32.5°	1053.0	1063.7	1083.8	1109.2	1117.2
35°	1011.5	1023.6	1045.0	1073.1	1083.8
37.5°	967.4	980.7	1006.2	1036.9	1050.3
40°	921.9	937.9	964.7	1000.8	1015.5
42.5°	876.4	891.1	924.5	963.3	979.4
45°	829.5	846.9	881.7	925.9	941.9
47.5°	781.4	798.8	840.3	887.1	901.8
50°	733.2	750.6	797.4	846.9	864.3
52.5°	681.0	703.8	757.3	806.8	824.2
55°	634.2	655.6	710.5	766.7	785.4
57.5°	580.7	606.1	666.3	725.2	745.3
60°	531.2	557.9	622.2	682.4	702.4
62.5°	480.3	509.8	578.0	639.6	662.3
65°	425.5	461.6	533.9	596.7	619.5
67.5°	376.0	413.4	489.7	553.9	574.0
70°	319.8	365.3	442.9	507.1	529.8
72.5°	271.6	317.1	398.7	461.6	484.3
75°	220.8	270.3	351.9	414.8	434.8
77.5°	169.9	224.8	306.4	354.6	361.3
80°	121.8	179.3	254.2	282.3	291.7
82.5°	85.6	137.8	187.3	206.0	211.4
85°	46.8	91.0	117.7	125.8	125.8
87.5°	20.1	38.8	46.8	48.2	49.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)