

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: P275910

Luminaire Tested: **24CZ2-45HE-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P275910  
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-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4497.0 lumens  
Efficiency: N/A  
Efficacy: 136.2 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

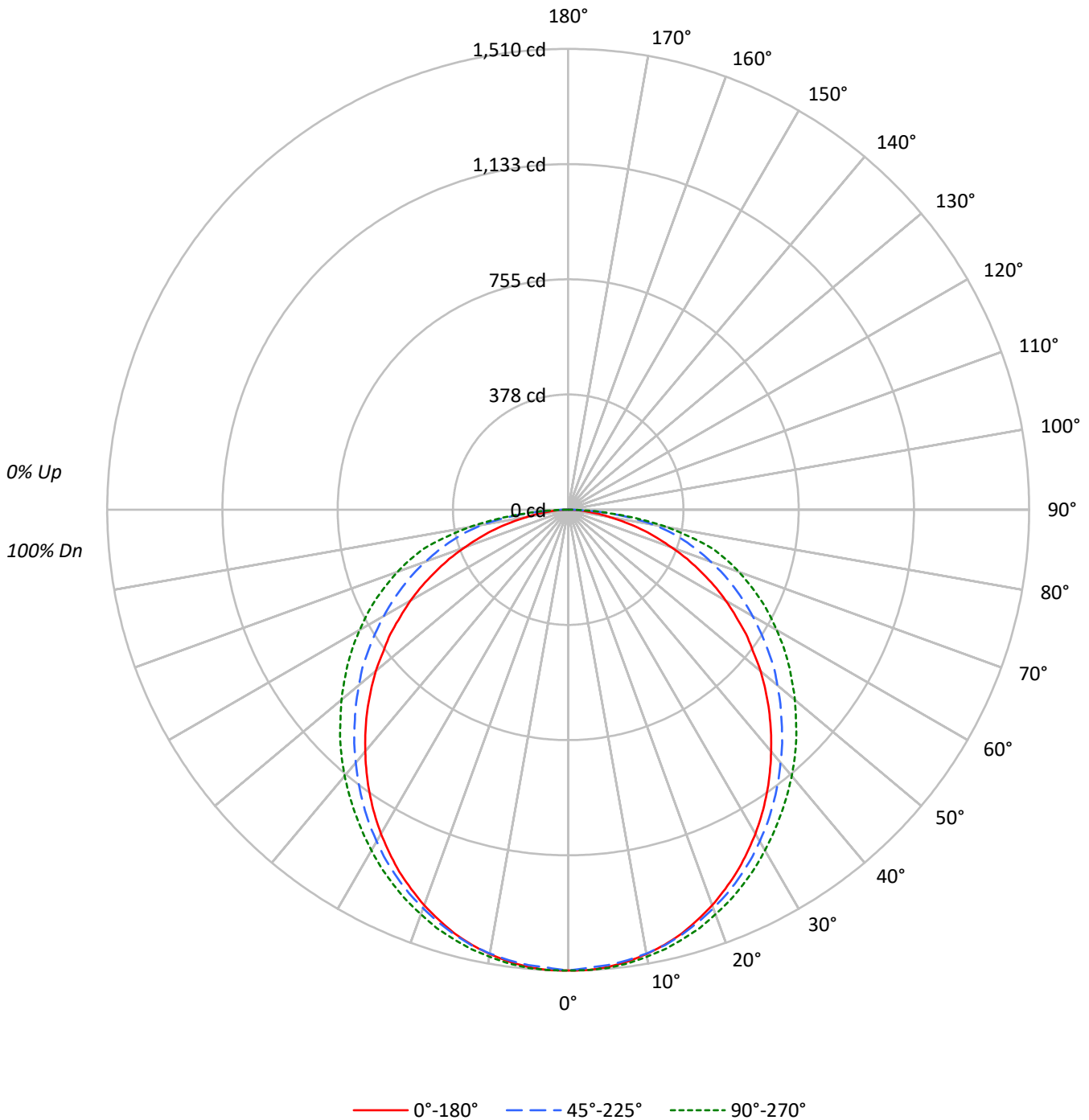
Input Watts (W): 33.015  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2032	2032	2032
5°	2031	2023	2035
10°	2020	2018	2032
15°	2003	2007	2028
20°	1975	1990	2020
25°	1943	1972	2012
30°	1905	1949	2003
35°	1864	1925	1997
40°	1816	1901	2001
45°	1771	1882	2011
50°	1722	1872	2029
55°	1669	1869	2067
60°	1603	1878	2120
65°	1520	1906	2212
70°	1411	1954	2338
75°	1287	2052	2536
80°	1058	2210	2535
85°	810	2039	2178



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.8	3.2
10°-20°	407.7	9.1
20°-30°	613.5	13.6
30°-40°	735.2	16.3
40°-50°	766.1	17.0
50°-60°	712.8	15.9
60°-70°	587.1	13.1
70°-80°	399.8	8.9
80°-90°	132.0	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°	1163.9	25.9
0°-40°	1899.1	42.2
0°-60°	3378.1	75.1
0°-90°	4497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4497.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1510	1510	1510	1510	1510	
5°	1504	1504	1498	1505	1507	143
15°	1438	1439	1441	1454	1456	405
25°	1309	1315	1328	1351	1355	602
35°	1135	1148	1172	1204	1216	709
45°	930	950	989	1039	1057	718
55°	711	735	797	860	881	634
65°	477	518	599	669	695	474
75°	248	303	395	465	488	261
85°	52	102	132	141	141	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1509.9	1509.9	1509.9	1509.9	1509.9
2.5°	1509.9	1509.9	1502.3	1509.9	1509.9
5°	1503.8	1503.8	1497.8	1505.3	1506.9
7.5°	1493.3	1494.8	1488.8	1497.8	1499.3
10°	1478.3	1479.8	1476.8	1485.8	1487.3
12.5°	1460.3	1461.8	1461.8	1472.3	1473.8
15°	1437.8	1439.3	1440.8	1454.3	1455.8
17.5°	1409.3	1413.8	1416.8	1433.3	1436.3
20°	1379.3	1383.8	1389.8	1407.8	1410.8
22.5°	1344.8	1350.8	1361.3	1380.8	1385.3
25°	1308.7	1314.7	1328.2	1350.8	1355.3
27.5°	1268.2	1277.2	1293.7	1317.7	1323.7
30°	1226.2	1235.2	1254.7	1280.2	1289.2
32.5°	1181.2	1193.2	1215.7	1244.2	1253.2
35°	1134.6	1148.1	1172.2	1203.7	1215.7
37.5°	1085.1	1100.1	1128.6	1163.2	1178.2
40°	1034.1	1052.1	1082.1	1122.6	1139.1
42.5°	983.1	999.6	1037.1	1080.6	1098.6
45°	930.5	950.0	989.1	1038.6	1056.6
47.5°	876.5	896.0	942.5	995.1	1011.6
50°	822.5	842.0	894.5	950.0	969.5
52.5°	763.9	789.4	849.5	905.0	924.5
55°	711.4	735.4	796.9	860.0	881.0
57.5°	651.4	679.9	747.4	813.5	836.0
60°	595.8	625.9	697.9	765.4	787.9
62.5°	538.8	571.8	648.4	717.4	742.9
65°	477.3	517.8	598.8	669.4	694.9
67.5°	421.7	463.8	549.3	621.4	643.9
70°	358.7	409.7	496.8	568.8	594.3
72.5°	304.7	355.7	447.3	517.8	543.3
75°	247.6	303.2	394.7	465.3	487.8
77.5°	190.6	252.1	343.7	397.7	405.2
80°	136.6	201.1	285.2	316.7	327.2
82.5°	96.1	154.6	210.1	231.1	237.1
85°	52.5	102.1	132.1	141.1	141.1
87.5°	22.5	43.5	52.5	54.0	55.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)