

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: P229978

Luminaire Tested: **24CZ-LD5-55-UNV-L940-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229978  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-55-UNV-L940-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4856.0 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

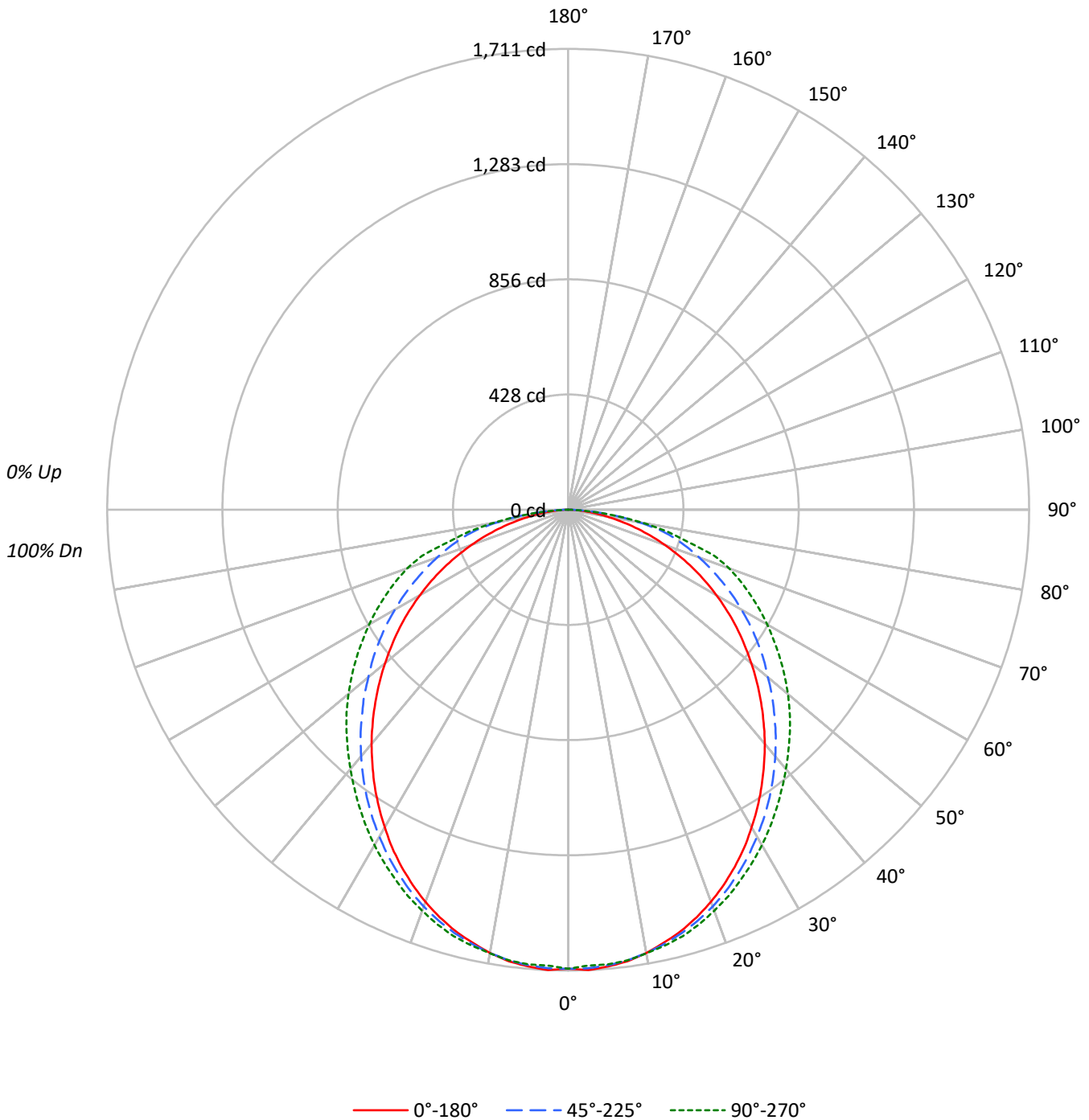
Input Watts (W): 45.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P229978

CATALOG NUMBER: 24CZ-LD5-55-UNV-L940-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P229978

CATALOG NUMBER: 24CZ-LD5-55-UNV-L940-CD1-U

**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	99	95	106	101	97	93	97	93	90		93	90	88		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	60	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	35	32
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28		40	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26		37	30	25		36	30	25	24

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

	0°	45°	90°
0°	2293	2293	2293
5°	2299	2293	2288
10°	2283	2283	2285
15°	2256	2267	2284
20°	2219	2245	2269
25°	2172	2214	2251
30°	2116	2178	2234
35°	2056	2141	2218
40°	1995	2100	2208
45°	1927	2060	2214
50°	1858	2026	2227
55°	1790	2012	2250
60°	1709	2000	2295
65°	1620	2001	2372
70°	1498	2034	2498
75°	1340	2126	2377
80°	1120	2035	2177
85°	848	1565	1488



TEST NUMBER: P229978

CATALOG NUMBER: 24CZ-LD5-55-UNV-L940-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.0	3.3
10°-20°	458.3	9.4
20°-30°	685.2	14.1
30°-40°	812.9	16.7
40°-50°	836.6	17.2
50°-60°	767.5	15.8
60°-70°	620.6	12.8
70°-80°	402.7	8.3
80°-90°	111.0	2.3
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°	1304.6	26.9
0°-40°	2117.5	43.6
0°-60°	3721.6	76.6
0°-90°	4856.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4856.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1704	1704	1704	1704	1704	
5°	1702	1691	1698	1696	1694	162
15°	1619	1613	1628	1634	1639	456
25°	1463	1465	1491	1505	1516	673
35°	1252	1262	1304	1332	1350	783
45°	1012	1029	1082	1134	1164	781
55°	763	786	858	928	959	682
65°	509	539	628	712	745	503
75°	258	306	409	457	457	274
85°	55	93	101	98	96	67
90°	0	0	0	0	0	



TEST NUMBER: P229978

CATALOG NUMBER: 24CZ-LD5-55-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1704.2	1704.2	1704.2	1704.2	1704.2
2.5°	1710.9	1697.6	1704.2	1702.5	1694.2
5°	1702.5	1690.9	1697.6	1695.9	1694.2
7.5°	1690.9	1679.3	1687.6	1685.9	1687.6
10°	1671.0	1661.0	1671.0	1672.6	1672.6
12.5°	1646.0	1637.7	1651.0	1654.3	1657.6
15°	1619.4	1612.8	1627.7	1634.4	1639.4
17.5°	1586.2	1581.2	1599.5	1607.8	1614.4
20°	1549.6	1547.9	1567.9	1576.2	1584.5
22.5°	1508.0	1508.0	1531.3	1541.3	1552.9
25°	1463.1	1464.8	1491.4	1504.7	1516.3
27.5°	1414.9	1416.6	1448.2	1464.8	1478.1
30°	1361.7	1368.4	1401.6	1423.2	1438.2
32.5°	1308.5	1316.8	1353.4	1378.3	1395.0
35°	1252.0	1261.9	1303.5	1331.8	1350.1
37.5°	1193.8	1205.4	1250.3	1281.9	1303.5
40°	1135.6	1148.9	1195.4	1232.0	1257.0
42.5°	1074.1	1089.0	1140.6	1183.8	1210.4
45°	1012.5	1029.2	1082.4	1133.9	1163.8
47.5°	951.0	971.0	1027.5	1084.0	1115.6
50°	887.8	907.8	967.7	1032.5	1064.1
52.5°	824.7	847.9	914.5	981.0	1012.5
55°	763.2	786.4	857.9	927.8	959.3
57.5°	700.0	723.2	801.4	874.5	906.1
60°	635.1	661.7	743.2	818.0	852.9
62.5°	571.9	600.2	686.7	766.5	799.7
65°	508.8	538.7	628.5	711.6	744.9
67.5°	443.9	478.8	571.9	656.7	691.7
70°	380.7	419.0	517.1	601.9	635.1
72.5°	319.2	360.8	462.2	548.7	568.6
75°	257.7	305.9	409.0	457.2	457.2
77.5°	199.5	252.7	349.2	367.4	377.4
80°	144.6	202.8	262.7	284.3	281.0
82.5°	96.4	154.6	187.9	187.9	182.9
85°	54.9	93.1	101.4	98.1	96.4
87.5°	23.3	34.9	31.6	24.9	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)