

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: P230024

Luminaire Tested: **24CZ-LD5-65SE-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P230024  
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-LD5-65SE-UNV-L930-CD1-U  
Description: CRUZE 2x4 LED TROFFER  
WITH RIBBED LENS  
Light Source: (84) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5415.0 lumens  
Efficiency: N/A  
Efficacy: 90.2 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

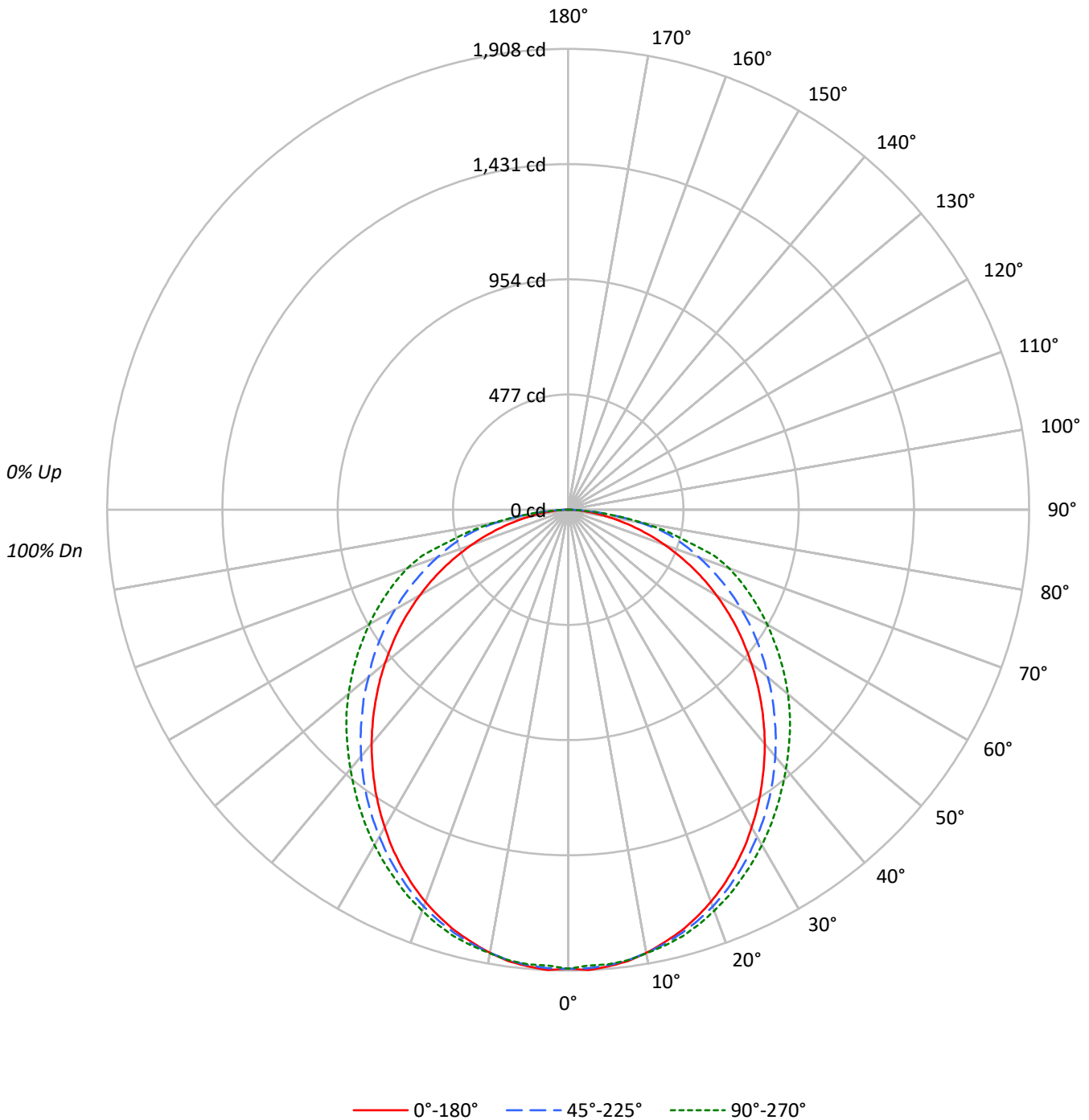
Input Watts (W): 60  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	2557	2557	2557
5°	2564	2557	2552
10°	2546	2546	2548
15°	2515	2528	2546
20°	2474	2503	2530
25°	2422	2469	2510
30°	2359	2428	2492
35°	2293	2388	2473
40°	2224	2341	2462
45°	2148	2297	2469
50°	2072	2259	2484
55°	1996	2244	2510
60°	1906	2230	2559
65°	1806	2231	2644
70°	1670	2268	2786
75°	1494	2371	2651
80°	1250	2269	2428
85°	945	1746	1660



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.6	3.3
10°-20°	511.1	9.4
20°-30°	764.1	14.1
30°-40°	906.4	16.7
40°-50°	933.0	17.2
50°-60°	855.9	15.8
60°-70°	692.0	12.8
70°-80°	449.1	8.3
80°-90°	123.8	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°	1454.8	26.9
0°-40°	2361.2	43.6
0°-60°	4150.1	76.6
0°-90°	5415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5415.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1900	1900	1900	1900	1900	
5°	1898	1886	1893	1891	1889	180
15°	1806	1798	1815	1822	1828	509
25°	1632	1633	1663	1678	1691	751
35°	1396	1407	1454	1485	1506	873
45°	1129	1148	1207	1264	1298	871
55°	851	877	957	1035	1070	760
65°	567	601	701	794	831	561
75°	287	341	456	510	510	305
85°	61	104	113	109	108	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1900.4	1900.4	1900.4	1900.4	1900.4
2.5°	1907.8	1893.0	1900.4	1898.5	1889.3
5°	1898.5	1885.6	1893.0	1891.1	1889.3
7.5°	1885.6	1872.6	1881.8	1880.0	1881.8
10°	1863.3	1852.2	1863.3	1865.2	1865.2
12.5°	1835.5	1826.2	1841.1	1844.8	1848.5
15°	1805.8	1798.4	1815.1	1822.5	1828.1
17.5°	1768.7	1763.2	1783.6	1792.8	1800.3
20°	1728.0	1726.1	1748.4	1757.6	1766.9
22.5°	1681.6	1681.6	1707.6	1718.7	1731.7
25°	1631.5	1633.4	1663.1	1677.9	1690.9
27.5°	1577.8	1579.6	1614.9	1633.4	1648.2
30°	1518.5	1525.9	1562.9	1587.1	1603.7
32.5°	1459.1	1468.4	1509.2	1537.0	1555.5
35°	1396.1	1407.2	1453.6	1485.1	1505.5
37.5°	1331.2	1344.2	1394.2	1429.5	1453.6
40°	1266.3	1281.1	1333.0	1373.8	1401.6
42.5°	1197.7	1214.4	1271.9	1320.1	1349.7
45°	1129.1	1147.6	1207.0	1264.5	1297.8
47.5°	1060.5	1082.8	1145.8	1208.8	1244.1
50°	990.1	1012.3	1079.0	1151.4	1186.6
52.5°	919.6	945.6	1019.7	1093.9	1129.1
55°	851.0	877.0	956.7	1034.6	1069.8
57.5°	780.5	806.5	893.6	975.2	1010.4
60°	708.2	737.9	828.8	912.2	951.1
62.5°	637.8	669.3	765.7	854.7	891.8
65°	567.3	600.7	700.8	793.5	830.6
67.5°	495.0	534.0	637.8	732.3	771.3
70°	424.6	467.2	576.6	671.2	708.2
72.5°	356.0	402.3	515.4	611.8	634.1
75°	287.4	341.1	456.1	509.9	509.9
77.5°	222.5	281.8	389.3	409.7	420.9
80°	161.3	226.2	292.9	317.0	313.3
82.5°	107.5	172.4	209.5	209.5	203.9
85°	61.2	103.8	113.1	109.4	107.5
87.5°	26.0	38.9	35.2	27.8	24.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)