

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: P229985

Luminaire Tested: **24CZ-LD5-65-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229985
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-LD5-65-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5665.0 lumens
Efficiency: N/A
Efficacy: 98.3 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

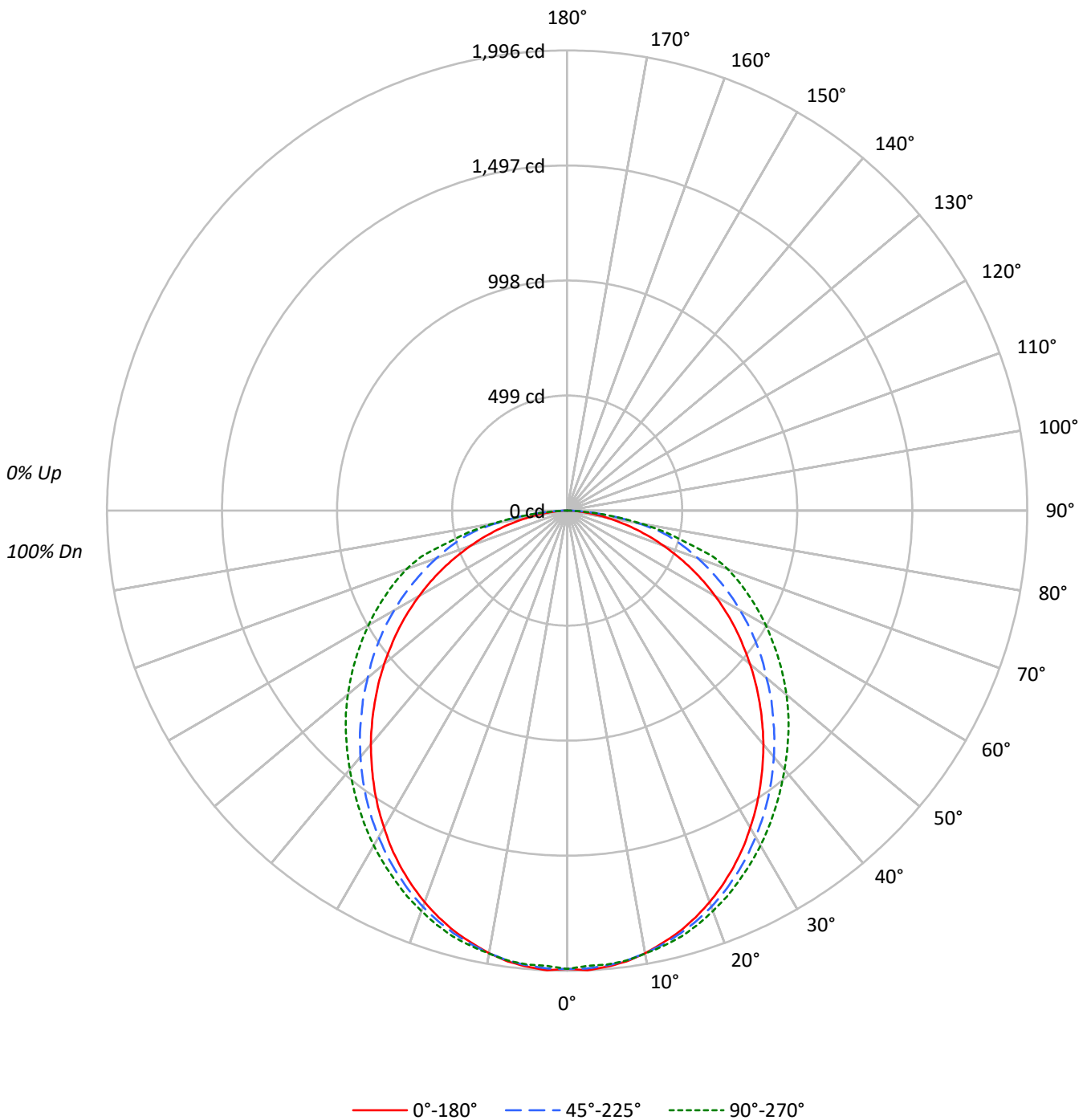
Input Watts (W): 57.64
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2675	2675	2675
5°	2683	2675	2670
10°	2663	2663	2666
15°	2632	2645	2664
20°	2588	2619	2647
25°	2534	2583	2626
30°	2468	2540	2607
35°	2399	2498	2587
40°	2327	2449	2576
45°	2248	2403	2583
50°	2168	2363	2599
55°	2088	2348	2625
60°	1994	2333	2678
65°	1890	2334	2767
70°	1747	2373	2915
75°	1563	2480	2773
80°	1307	2375	2540
85°	988	1826	1737



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.9	3.3
10°-20°	534.7	9.4
20°-30°	799.3	14.1
30°-40°	948.3	16.7
40°-50°	976.0	17.2
50°-60°	895.4	15.8
60°-70°	724.0	12.8
70°-80°	469.8	8.3
80°-90°	129.6	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°	1521.9	26.9
0°-40°	2470.2	43.6
0°-60°	4341.6	76.6
0°-90°	5665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5665.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1988	1988	1988	1988	1988	
5°	1986	1973	1980	1978	1976	188
15°	1889	1881	1899	1907	1912	532
25°	1707	1709	1740	1755	1769	786
35°	1460	1472	1521	1554	1575	913
45°	1181	1201	1263	1323	1358	912
55°	890	917	1001	1082	1119	795
65°	594	628	733	830	869	587
75°	301	357	477	533	533	320
85°	64	109	118	114	112	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1988.1	1988.1	1988.1	1988.1	1988.1
2.5°	1995.9	1980.4	1988.1	1986.2	1976.5
5°	1986.2	1972.6	1980.4	1978.4	1976.5
7.5°	1972.6	1959.0	1968.7	1966.8	1968.7
10°	1949.3	1937.7	1949.3	1951.3	1951.3
12.5°	1920.2	1910.5	1926.1	1929.9	1933.8
15°	1889.2	1881.4	1898.9	1906.7	1912.5
17.5°	1850.4	1844.6	1865.9	1875.6	1883.4
20°	1807.7	1805.8	1829.1	1838.8	1848.5
22.5°	1759.2	1759.2	1786.4	1798.0	1811.6
25°	1706.9	1708.8	1739.8	1755.4	1768.9
27.5°	1650.6	1652.6	1689.4	1708.8	1724.3
30°	1588.6	1596.3	1635.1	1660.3	1677.8
32.5°	1526.5	1536.2	1578.9	1608.0	1627.3
35°	1460.5	1472.2	1520.7	1553.6	1575.0
37.5°	1392.7	1406.2	1458.6	1495.5	1520.7
40°	1324.8	1340.3	1394.6	1437.3	1466.4
42.5°	1253.0	1270.5	1330.6	1381.0	1412.1
45°	1181.2	1200.6	1262.7	1322.8	1357.7
47.5°	1109.5	1132.7	1198.7	1264.6	1301.5
50°	1035.8	1059.0	1128.9	1204.5	1241.4
52.5°	962.1	989.2	1066.8	1144.4	1181.2
55°	890.3	917.4	1000.8	1082.3	1119.2
57.5°	816.6	843.7	934.9	1020.2	1057.1
60°	740.9	772.0	867.0	954.3	995.0
62.5°	667.2	700.2	801.1	894.2	933.0
65°	593.5	628.4	733.2	830.2	869.0
67.5°	517.9	558.6	667.2	766.2	806.9
70°	444.2	488.8	603.2	702.1	740.9
72.5°	372.4	420.9	539.2	640.1	663.4
75°	300.6	356.9	477.1	533.4	533.4
77.5°	232.8	294.8	407.3	428.7	440.3
80°	168.7	236.6	306.5	331.7	327.8
82.5°	112.5	180.4	219.2	219.2	213.4
85°	64.0	108.6	118.3	114.4	112.5
87.5°	27.2	40.7	36.9	29.1	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)