

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: P229988

Luminaire Tested: **24CZ-LD5-70-UNV-L930-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P229988
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-LD5-70-UNV-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH RIBBED LENS
Light Source: (168) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5868.0 lumens
Efficiency: N/A
Efficacy: 91.4 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

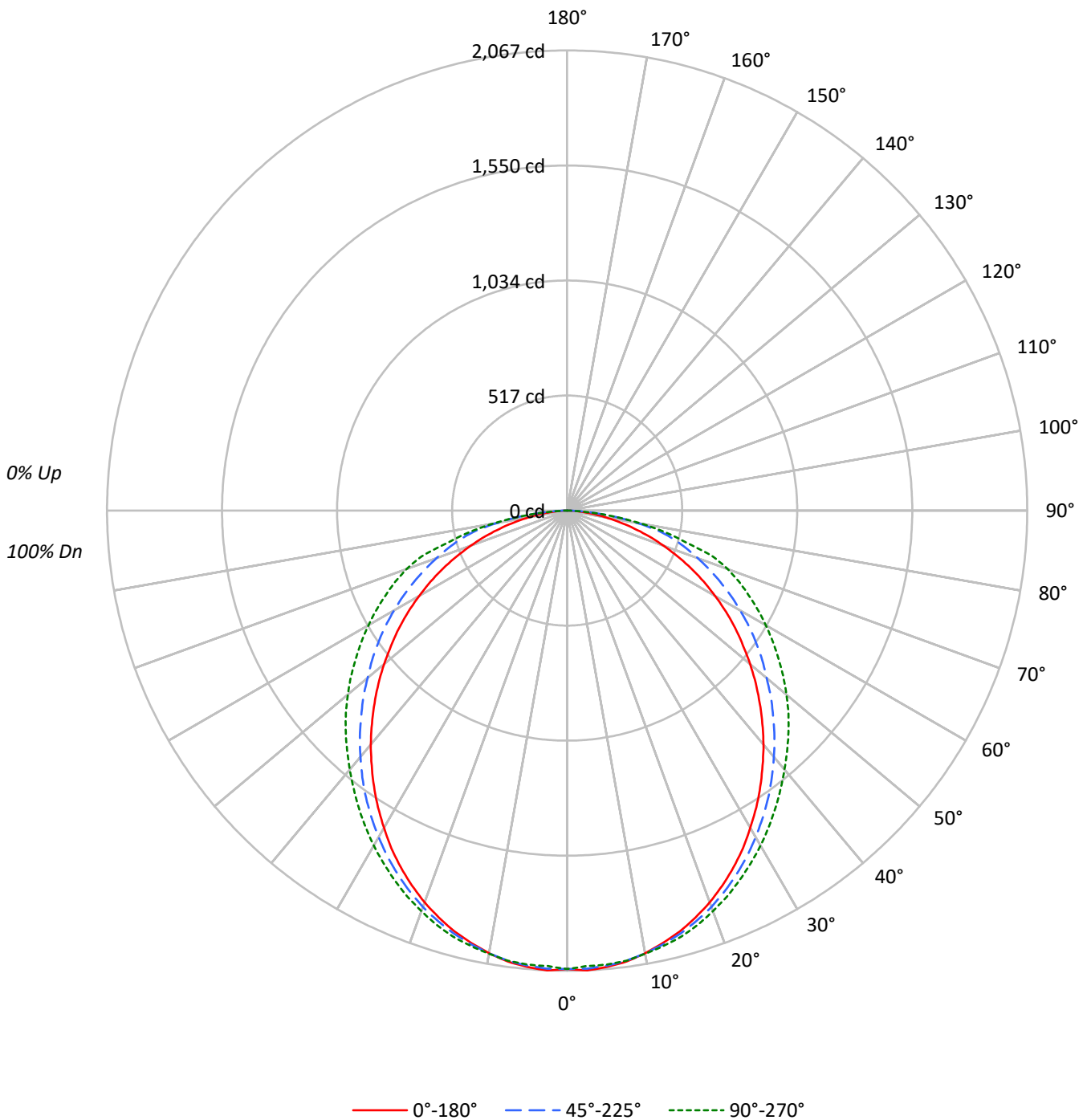
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2771	2771	2771
5°	2779	2771	2765
10°	2759	2759	2761
15°	2726	2740	2759
20°	2681	2713	2742
25°	2625	2676	2720
30°	2557	2631	2700
35°	2485	2587	2680
40°	2410	2537	2668
45°	2328	2489	2676
50°	2246	2448	2691
55°	2163	2432	2719
60°	2065	2417	2774
65°	1957	2418	2866
70°	1810	2458	3019
75°	1619	2569	2872
80°	1354	2459	2631
85°	1024	1893	1798



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	3.3
10°-20°	553.9	9.4
20°-30°	828.0	14.1
30°-40°	982.3	16.7
40°-50°	1011.0	17.2
50°-60°	927.5	15.8
60°-70°	749.9	12.8
70°-80°	486.7	8.3
80°-90°	134.2	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°	1576.5	26.9
0°-40°	2558.7	43.6
0°-60°	4497.2	76.6
0°-90°	5868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2059	2059	2059	2059	2059	
5°	2057	2043	2051	2049	2047	195
15°	1957	1949	1967	1975	1981	551
25°	1768	1770	1802	1818	1832	814
35°	1513	1525	1575	1609	1631	946
45°	1224	1244	1308	1370	1406	944
55°	922	950	1037	1121	1159	824
65°	615	651	760	860	900	608
75°	311	370	494	552	552	331
85°	66	112	123	118	116	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2059.4	2059.4	2059.4	2059.4	2059.4
2.5°	2067.4	2051.3	2059.4	2057.4	2047.3
5°	2057.4	2043.3	2051.3	2049.3	2047.3
7.5°	2043.3	2029.2	2039.3	2037.3	2039.3
10°	2019.2	2007.1	2019.2	2021.2	2021.2
12.5°	1989.0	1979.0	1995.1	1999.1	2003.1
15°	1956.9	1948.9	1966.9	1975.0	1981.0
17.5°	1916.7	1910.7	1932.8	1942.8	1950.9
20°	1872.5	1870.5	1894.6	1904.7	1914.7
22.5°	1822.3	1822.3	1850.4	1862.5	1876.5
25°	1768.0	1770.0	1802.2	1818.3	1832.3
27.5°	1709.8	1711.8	1750.0	1770.0	1786.1
30°	1645.5	1653.5	1693.7	1719.8	1737.9
32.5°	1581.2	1591.2	1635.4	1665.6	1685.7
35°	1512.9	1524.9	1575.2	1609.3	1631.4
37.5°	1442.6	1456.6	1510.9	1549.0	1575.2
40°	1372.2	1388.3	1444.6	1488.8	1518.9
42.5°	1297.9	1316.0	1378.3	1430.5	1462.6
45°	1223.6	1243.7	1307.9	1370.2	1406.4
47.5°	1149.2	1173.3	1241.6	1310.0	1348.1
50°	1072.9	1097.0	1169.3	1247.7	1285.8
52.5°	996.5	1024.7	1105.0	1185.4	1223.6
55°	922.2	950.3	1036.7	1121.1	1159.3
57.5°	845.8	874.0	968.4	1056.8	1095.0
60°	767.5	799.6	898.1	988.5	1030.7
62.5°	691.1	725.3	829.8	926.2	966.4
65°	614.8	651.0	759.5	859.9	900.1
67.5°	536.4	578.6	691.1	793.6	835.8
70°	460.1	506.3	624.8	727.3	767.5
72.5°	385.8	436.0	558.5	663.0	687.1
75°	311.4	369.7	494.2	552.5	552.5
77.5°	241.1	305.4	421.9	444.0	456.1
80°	174.8	245.1	317.4	343.6	339.5
82.5°	116.5	186.8	227.0	227.0	221.0
85°	66.3	112.5	122.6	118.5	116.5
87.5°	28.1	42.2	38.2	30.1	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)