

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: P230097

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230097
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-65SE-S-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5741.0 lumens
Efficiency: N/A
Efficacy: 95.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

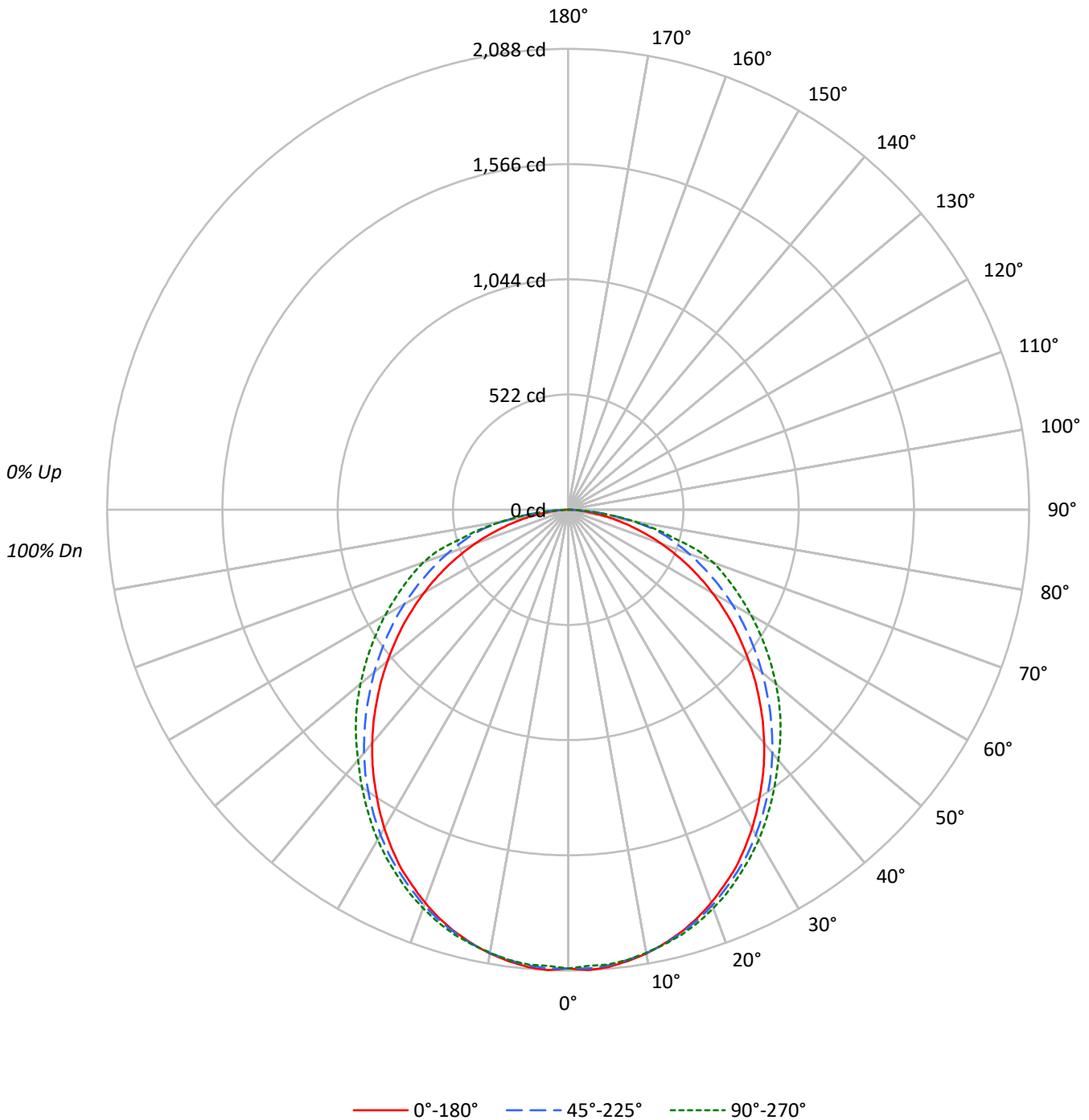
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91		93	90	88		89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	58	52		62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2796	2796	2796
5°	2810	2799	2794
10°	2790	2787	2785
15°	2759	2765	2775
20°	2713	2732	2752
25°	2660	2688	2717
30°	2588	2641	2683
35°	2507	2585	2639
40°	2426	2526	2600
45°	2334	2461	2588
50°	2239	2399	2571
55°	2142	2348	2563
60°	2030	2308	2575
65°	1910	2280	2627
70°	1758	2292	2751
75°	1559	2373	2562
80°	1303	2250	2309
85°	973	1798	1652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.5	3.4
10°-20°	558.8	9.7
20°-30°	832.8	14.5
30°-40°	980.4	17.1
40°-50°	996.3	17.4
50°-60°	895.7	15.6
60°-70°	707.6	12.3
70°-80°	448.9	7.8
80°-90°	123.9	2.2
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°	1588.2	27.7
0°-40°	2568.5	44.7
0°-60°	4460.5	77.7
0°-90°	5741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2078	2078	2078	2078	2078	
5°	2080	2063	2073	2069	2069	197
15°	1981	1971	1985	1990	1992	558
25°	1792	1790	1811	1822	1830	824
35°	1526	1536	1574	1591	1606	955
45°	1226	1244	1293	1331	1360	946
55°	913	936	1001	1066	1093	815
65°	600	630	716	795	825	594
75°	300	352	456	497	493	319
85°	63	109	116	107	107	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2078.3	2078.3	2078.3	2078.3	2078.3
2.5°	2087.9	2072.6	2080.3	2076.4	2068.8
5°	2080.3	2063.1	2072.6	2068.8	2068.8
7.5°	2063.1	2049.7	2057.3	2055.4	2057.3
10°	2042.1	2028.7	2040.1	2040.1	2038.2
12.5°	2013.4	2001.9	2015.3	2015.3	2017.2
15°	1980.9	1971.4	1984.7	1990.5	1992.4
17.5°	1940.8	1931.3	1948.5	1954.2	1959.9
20°	1895.0	1891.1	1908.3	1914.1	1921.7
22.5°	1843.4	1843.4	1860.6	1868.2	1879.7
25°	1791.8	1789.9	1810.9	1822.4	1830.0
27.5°	1730.7	1732.6	1759.3	1770.8	1780.3
30°	1665.7	1669.6	1700.1	1713.5	1726.9
32.5°	1597.0	1604.6	1639.0	1654.3	1667.6
35°	1526.3	1535.8	1574.0	1591.2	1606.5
37.5°	1455.6	1469.0	1509.1	1526.3	1543.5
40°	1381.1	1392.6	1438.4	1459.4	1480.4
42.5°	1304.7	1320.0	1365.8	1396.4	1421.2
45°	1226.4	1243.6	1293.2	1331.4	1360.1
47.5°	1148.1	1171.0	1218.7	1270.3	1295.1
50°	1069.7	1092.7	1146.1	1203.5	1228.3
52.5°	989.5	1012.4	1073.6	1132.8	1159.5
55°	913.1	936.0	1001.0	1065.9	1092.7
57.5°	832.9	857.7	930.3	997.1	1023.9
60°	754.5	779.4	857.7	928.4	957.0
62.5°	678.1	704.9	787.0	861.5	890.2
65°	599.8	630.4	716.3	794.7	825.2
67.5°	523.4	557.8	647.6	729.7	762.2
70°	447.0	487.1	582.6	666.7	699.2
72.5°	372.5	416.4	517.7	601.7	618.9
75°	299.9	351.5	456.5	496.7	492.8
77.5°	231.1	288.4	387.8	395.4	406.9
80°	168.1	231.1	290.4	305.6	298.0
82.5°	110.8	173.8	208.2	200.6	198.7
85°	63.0	108.9	116.5	107.0	107.0
87.5°	26.7	43.9	38.2	28.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)