

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: P230096

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230096
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-L930-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5523.0 lumens
Efficiency: N/A
Efficacy: 92.0 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

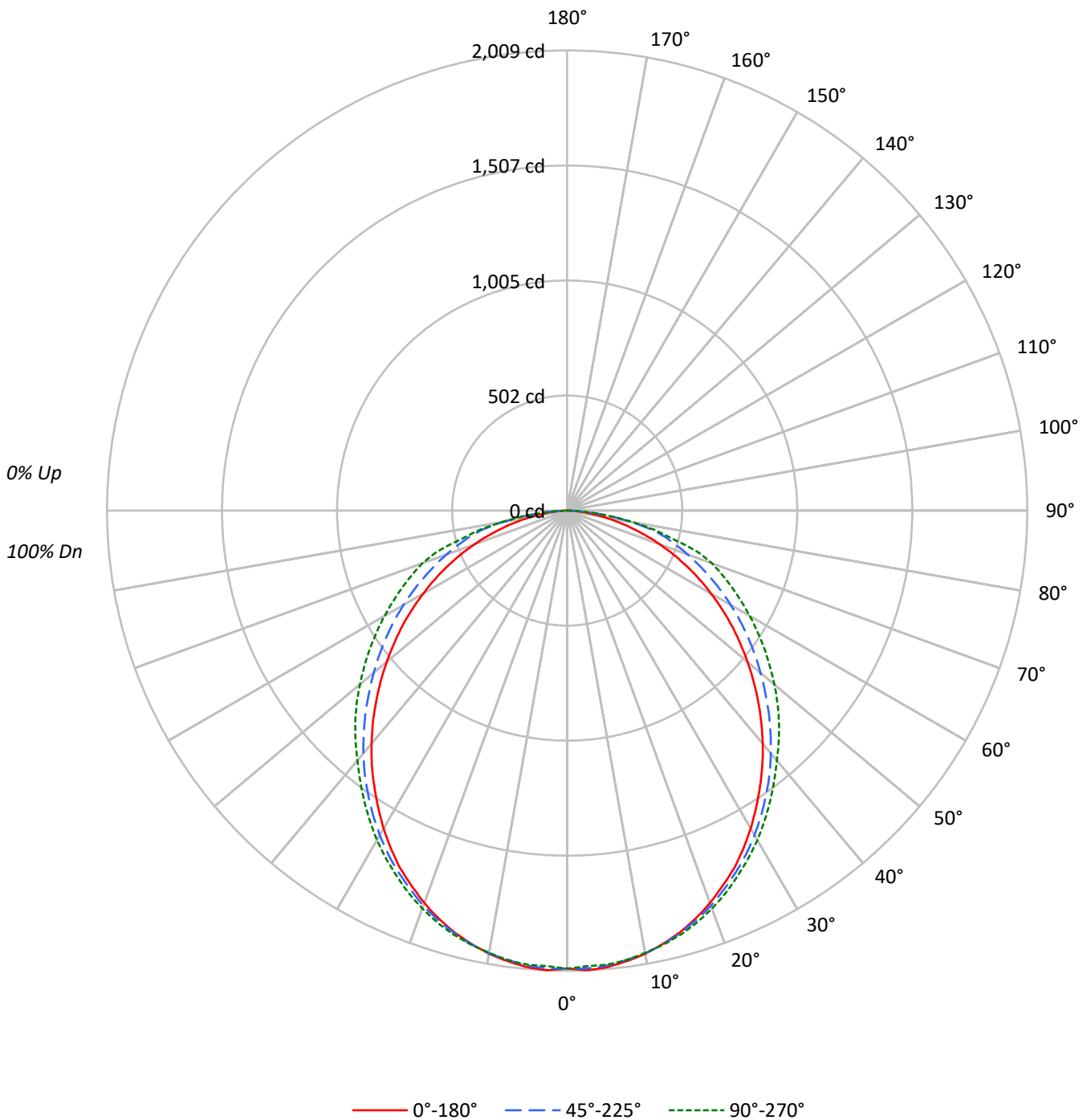
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2690	2690	2690
5°	2703	2693	2688
10°	2684	2682	2679
15°	2655	2660	2670
20°	2610	2629	2647
25°	2559	2586	2614
30°	2490	2541	2581
35°	2412	2487	2539
40°	2334	2431	2501
45°	2245	2367	2490
50°	2154	2308	2473
55°	2061	2259	2466
60°	1953	2220	2478
65°	1837	2194	2528
70°	1692	2205	2646
75°	1500	2283	2465
80°	1253	2164	2221
85°	936	1731	1589



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.0	3.4
10°-20°	537.6	9.7
20°-30°	801.2	14.5
30°-40°	943.1	17.1
40°-50°	958.4	17.4
50°-60°	861.7	15.6
60°-70°	680.8	12.3
70°-80°	431.9	7.8
80°-90°	119.2	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°	1527.9	27.7
0°-40°	2471.0	44.7
0°-60°	4291.2	77.7
0°-90°	5523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	2001	1985	1994	1990	1990	190
15°	1906	1896	1909	1915	1917	537
25°	1724	1722	1742	1753	1760	793
35°	1468	1478	1514	1531	1546	919
45°	1180	1196	1244	1281	1308	910
55°	878	900	963	1025	1051	784
65°	577	606	689	764	794	572
75°	288	338	439	478	474	307
85°	61	105	112	103	103	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1999.4	1999.4	1999.4	1999.4	1999.4
2.5°	2008.6	1993.9	2001.3	1997.6	1990.2
5°	2001.3	1984.7	1993.9	1990.2	1990.2
7.5°	1984.7	1971.9	1979.2	1977.4	1979.2
10°	1964.5	1951.6	1962.7	1962.7	1960.8
12.5°	1936.9	1925.9	1938.8	1938.8	1940.6
15°	1905.7	1896.5	1909.4	1914.9	1916.7
17.5°	1867.1	1857.9	1874.5	1880.0	1885.5
20°	1823.0	1819.3	1835.9	1841.4	1848.7
22.5°	1773.4	1773.4	1789.9	1797.3	1808.3
25°	1723.8	1721.9	1742.1	1753.2	1760.5
27.5°	1665.0	1666.8	1692.5	1703.6	1712.7
30°	1602.5	1606.2	1635.6	1648.4	1661.3
32.5°	1536.3	1543.7	1576.8	1591.5	1604.3
35°	1468.3	1477.5	1514.3	1530.8	1545.5
37.5°	1400.3	1413.2	1451.8	1468.3	1484.9
40°	1328.7	1339.7	1383.8	1404.0	1424.2
42.5°	1255.2	1269.9	1314.0	1343.4	1367.3
45°	1179.8	1196.3	1244.1	1280.9	1308.4
47.5°	1104.5	1126.5	1172.5	1222.1	1246.0
50°	1029.1	1051.2	1102.6	1157.8	1181.6
52.5°	951.9	974.0	1032.8	1089.8	1115.5
55°	878.4	900.5	963.0	1025.4	1051.2
57.5°	801.2	825.1	895.0	959.3	985.0
60°	725.9	749.8	825.1	893.1	920.7
62.5°	652.4	678.1	757.1	828.8	856.4
65°	577.0	606.4	689.1	764.5	793.9
67.5°	503.5	536.6	623.0	702.0	733.2
70°	430.0	468.6	560.5	641.4	672.6
72.5°	358.4	400.6	498.0	578.9	595.4
75°	288.5	338.1	439.2	477.8	474.1
77.5°	222.4	277.5	373.1	380.4	391.4
80°	161.7	222.4	279.3	294.0	286.7
82.5°	106.6	167.2	200.3	193.0	191.1
85°	60.6	104.7	112.1	102.9	102.9
87.5°	25.7	42.3	36.8	27.6	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)