

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: P230090

Luminaire Tested: **24CZ-LD5-55SE-S-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230090
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-LD5-55SE-S-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4987.0 lumens
Efficiency: N/A
Efficacy: 91.2 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

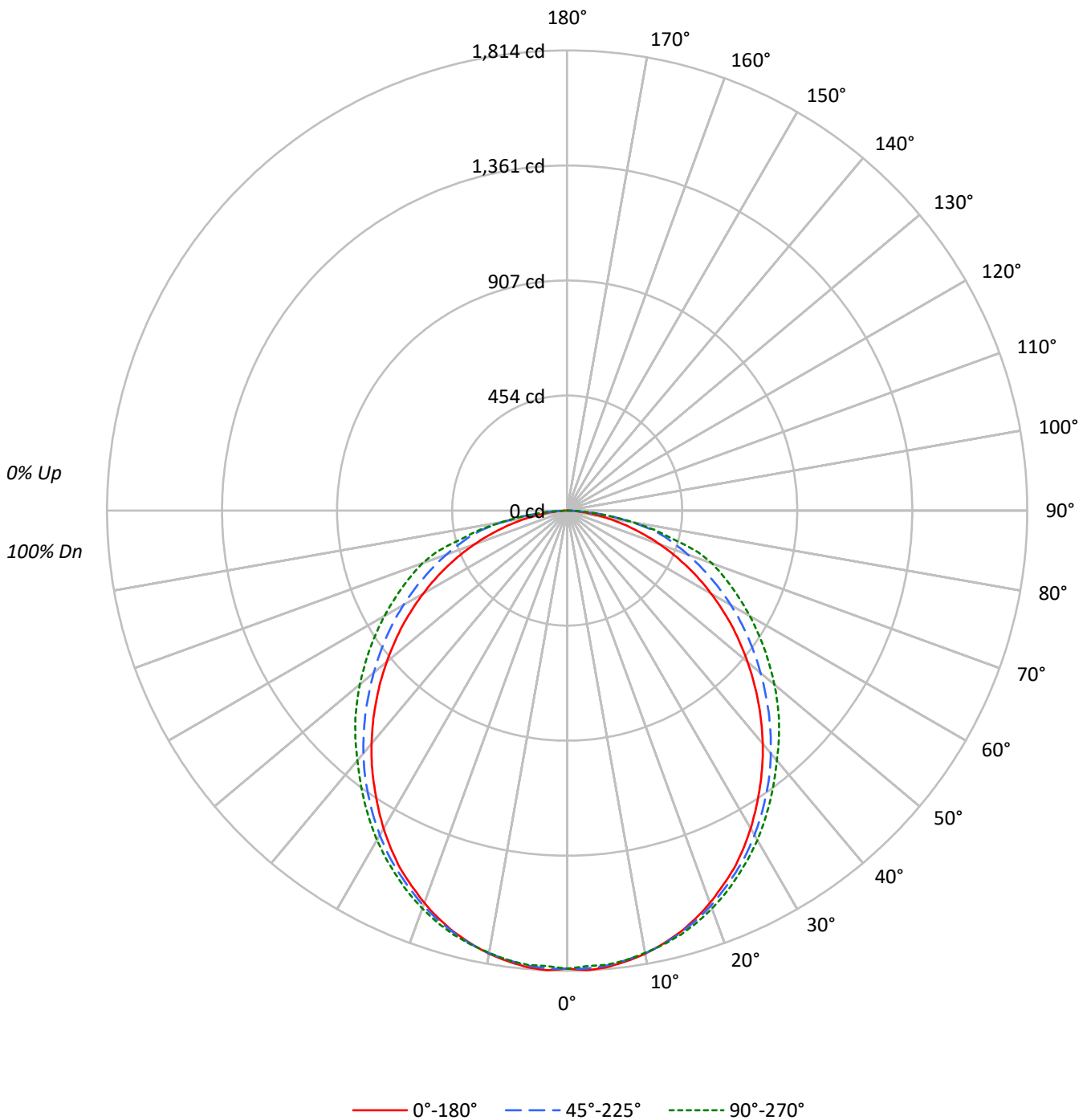
Input Watts (W): 54.69
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2429	2429	2429
5°	2441	2432	2427
10°	2424	2421	2419
15°	2397	2402	2411
20°	2357	2374	2390
25°	2311	2335	2360
30°	2248	2294	2331
35°	2178	2246	2292
40°	2107	2195	2259
45°	2027	2138	2248
50°	1945	2084	2233
55°	1861	2040	2227
60°	1764	2005	2237
65°	1659	1981	2282
70°	1528	1991	2389
75°	1354	2062	2226
80°	1131	1954	2006
85°	846	1562	1434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.7	3.4
10°-20°	485.4	9.7
20°-30°	723.4	14.5
30°-40°	851.6	17.1
40°-50°	865.4	17.4
50°-60°	778.1	15.6
60°-70°	614.7	12.3
70°-80°	390.0	7.8
80°-90°	107.6	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°	1379.6	27.7
0°-40°	2231.2	44.7
0°-60°	3874.7	77.7
0°-90°	4987.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4987.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1807	1792	1800	1797	1797	171
15°	1721	1712	1724	1729	1731	485
25°	1556	1555	1573	1583	1590	716
35°	1326	1334	1367	1382	1396	829
45°	1065	1080	1123	1157	1182	822
55°	793	813	870	926	949	708
65°	521	548	622	690	717	516
75°	260	305	397	431	428	277
85°	55	95	101	93	93	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1805.4	1805.4	1805.4	1805.4	1805.4
2.5°	1813.7	1800.4	1807.0	1803.7	1797.1
5°	1807.0	1792.1	1800.4	1797.1	1797.1
7.5°	1792.1	1780.5	1787.1	1785.5	1787.1
10°	1773.9	1762.2	1772.2	1772.2	1770.5
12.5°	1749.0	1739.0	1750.6	1750.6	1752.3
15°	1720.8	1712.5	1724.1	1729.1	1730.7
17.5°	1685.9	1677.6	1692.5	1697.5	1702.5
20°	1646.1	1642.8	1657.7	1662.7	1669.3
22.5°	1601.3	1601.3	1616.2	1622.9	1632.8
25°	1556.5	1554.8	1573.1	1583.0	1589.7
27.5°	1503.4	1505.0	1528.3	1538.2	1546.5
30°	1447.0	1450.3	1476.8	1488.4	1500.1
32.5°	1387.2	1393.9	1423.7	1437.0	1448.6
35°	1325.8	1334.1	1367.3	1382.2	1395.5
37.5°	1264.4	1276.0	1310.9	1325.8	1340.8
40°	1199.7	1209.7	1249.5	1267.8	1286.0
42.5°	1133.3	1146.6	1186.4	1213.0	1234.6
45°	1065.3	1080.2	1123.4	1156.6	1181.5
47.5°	997.3	1017.2	1058.7	1103.5	1125.0
50°	929.2	949.2	995.6	1045.4	1067.0
52.5°	859.5	879.5	932.6	984.0	1007.2
55°	793.2	813.1	869.5	925.9	949.2
57.5°	723.5	745.1	808.1	866.2	889.4
60°	655.4	677.0	745.1	806.4	831.3
62.5°	589.1	612.3	683.7	748.4	773.3
65°	521.0	547.6	622.3	690.3	716.8
67.5°	454.7	484.5	562.5	633.9	662.1
70°	388.3	423.1	506.1	579.1	607.3
72.5°	323.6	361.7	449.7	522.7	537.6
75°	260.5	305.3	396.6	431.4	428.1
77.5°	200.8	250.6	336.9	343.5	353.4
80°	146.0	200.8	252.2	265.5	258.9
82.5°	96.2	151.0	180.9	174.2	172.6
85°	54.8	94.6	101.2	92.9	92.9
87.5°	23.2	38.2	33.2	24.9	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)