

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: P230458

Luminaire Tested: **24CZ-LD5-65SE-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-65SE-SQP-UNV-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3984.5 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

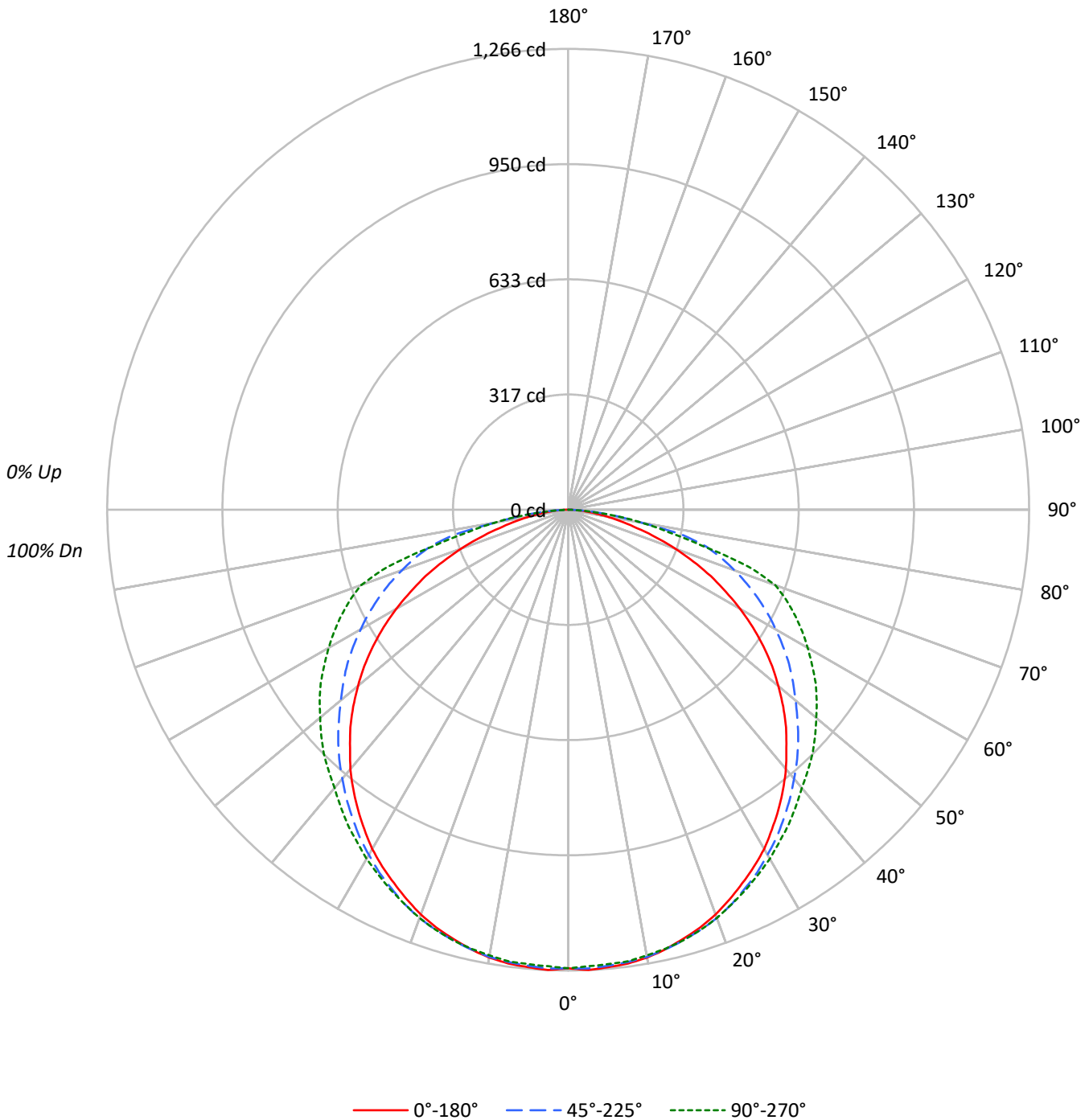
Input Watts (W): 60
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	98	94	105	101	97	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	63	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1695	1695	1695
5°	1704	1698	1693
10°	1707	1704	1698
15°	1700	1706	1706
20°	1694	1709	1709
25°	1681	1705	1711
30°	1672	1701	1720
35°	1653	1697	1734
40°	1634	1695	1753
45°	1610	1700	1805
50°	1577	1706	1861
55°	1535	1738	1946
60°	1468	1772	2044
65°	1376	1828	2188
70°	1231	1911	2380
75°	1016	2044	1969
80°	829	1579	1595
85°	667	1048	985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.6	3.0
10°-20°	345.2	8.7
20°-30°	527.6	13.2
30°-40°	645.3	16.2
40°-50°	690.4	17.3
50°-60°	661.1	16.6
60°-70°	559.3	14.0
70°-80°	354.5	8.9
80°-90°	81.5	2.0
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°	992.4	24.9
0°-40°	1637.6	41.1
0°-60°	2989.2	75.0
0°-90°	3984.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3984.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1260	1260	1260	1260	1260	
5°	1262	1256	1258	1256	1253	120
15°	1220	1218	1225	1225	1225	345
25°	1132	1132	1148	1153	1153	522
35°	1006	1013	1033	1048	1056	630
45°	846	860	893	930	949	652
55°	654	675	741	803	829	584
65°	432	473	574	652	687	426
75°	196	276	393	391	379	213
85°	43	66	68	62	64	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1259.6	1259.6	1259.6	1259.6	1259.6
2.5°	1265.8	1259.6	1261.6	1259.6	1255.5
5°	1261.6	1255.5	1257.5	1255.5	1253.4
7.5°	1257.5	1251.4	1253.4	1251.4	1251.4
10°	1249.3	1243.1	1247.2	1245.2	1243.1
12.5°	1236.9	1232.8	1236.9	1234.9	1234.9
15°	1220.5	1218.4	1224.6	1224.6	1224.6
17.5°	1204.0	1202.0	1210.2	1210.2	1210.2
20°	1183.4	1181.4	1193.7	1193.7	1193.7
22.5°	1158.7	1156.7	1173.1	1173.1	1173.1
25°	1132.0	1132.0	1148.4	1152.6	1152.6
27.5°	1105.2	1105.2	1123.7	1129.9	1129.9
30°	1076.4	1076.4	1094.9	1103.2	1107.3
32.5°	1041.4	1045.5	1066.1	1076.4	1080.5
35°	1006.4	1012.6	1033.2	1047.6	1055.8
37.5°	969.4	975.6	1000.3	1016.7	1027.0
40°	930.3	938.5	965.3	985.9	998.2
42.5°	887.1	899.4	930.3	957.0	973.5
45°	845.9	860.3	893.2	930.3	948.8
47.5°	800.6	817.1	854.1	901.5	920.0
50°	753.3	769.7	815.0	868.5	889.1
52.5°	705.9	724.5	778.0	835.6	860.3
55°	654.5	675.1	740.9	802.7	829.4
57.5°	601.0	625.7	699.8	765.6	794.4
60°	545.4	576.3	658.6	728.6	759.5
62.5°	487.8	524.8	617.4	691.5	724.5
65°	432.2	473.4	574.2	652.4	687.4
67.5°	372.5	424.0	531.0	615.4	648.3
70°	312.8	372.5	485.7	572.2	605.1
72.5°	253.2	325.2	440.4	518.7	518.7
75°	195.5	275.8	393.1	391.0	378.7
77.5°	148.2	230.5	323.1	275.8	277.8
80°	107.0	185.2	203.8	203.8	205.8
82.5°	72.0	142.0	131.7	129.7	133.8
85°	43.2	65.9	67.9	61.7	63.8
87.5°	20.6	22.6	18.5	12.3	12.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)