

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: P230421

Luminaire Tested: **24CZ-LD5-70-SQP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230421
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-LD5-70-SQP-UNV-L935-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4213.2 lumens
Efficiency: N/A
Efficacy: 65.6 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

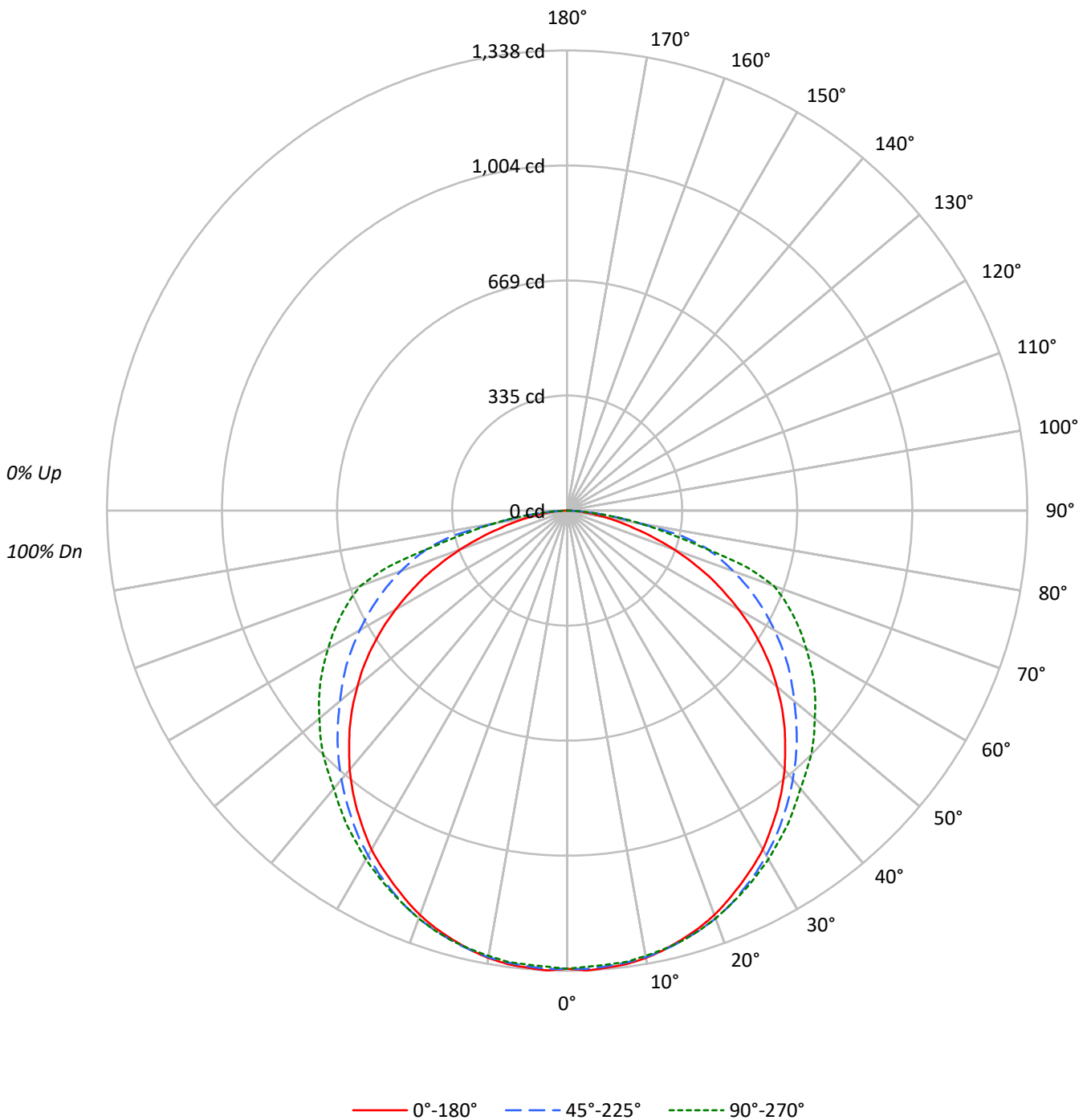
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1792	1792	1792
5°	1802	1796	1790
10°	1805	1802	1796
15°	1798	1804	1804
20°	1792	1807	1807
25°	1777	1803	1809
30°	1768	1799	1819
35°	1748	1794	1834
40°	1728	1793	1854
45°	1702	1797	1909
50°	1667	1804	1968
55°	1623	1838	2057
60°	1552	1874	2161
65°	1455	1933	2314
70°	1301	2020	2517
75°	1075	2161	2082
80°	877	1669	1686
85°	706	1108	1042



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.5	3.0
10°-20°	365.0	8.7
20°-30°	557.9	13.2
30°-40°	682.3	16.2
40°-50°	730.0	17.3
50°-60°	699.1	16.6
60°-70°	591.4	14.0
70°-80°	374.8	8.9
80°-90°	86.2	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°	1049.4	24.9
0°-40°	1731.6	41.1
0°-60°	3160.8	75.0
0°-90°	4213.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4213.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1332	1332	1332	1332	1332	
5°	1334	1328	1330	1328	1325	127
15°	1290	1288	1295	1295	1295	365
25°	1197	1197	1214	1219	1219	552
35°	1064	1071	1092	1108	1116	666
45°	894	910	944	984	1003	689
55°	692	714	784	849	877	617
65°	457	500	607	690	727	450
75°	207	292	416	414	400	225
85°	46	70	72	65	68	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1331.9	1331.9	1331.9	1331.9	1331.9
2.5°	1338.4	1331.9	1334.0	1331.9	1327.5
5°	1334.0	1327.5	1329.7	1327.5	1325.3
7.5°	1329.7	1323.2	1325.3	1323.2	1323.2
10°	1321.0	1314.5	1318.8	1316.6	1314.5
12.5°	1307.9	1303.6	1307.9	1305.8	1305.8
15°	1290.5	1288.3	1294.9	1294.9	1294.9
17.5°	1273.1	1270.9	1279.6	1279.6	1279.6
20°	1251.3	1249.2	1262.2	1262.2	1262.2
22.5°	1225.2	1223.1	1240.5	1240.5	1240.5
25°	1196.9	1196.9	1214.4	1218.7	1218.7
27.5°	1168.6	1168.6	1188.2	1194.8	1194.8
30°	1138.2	1138.2	1157.8	1166.5	1170.8
32.5°	1101.2	1105.5	1127.3	1138.2	1142.5
35°	1064.2	1070.7	1092.5	1107.7	1116.4
37.5°	1025.0	1031.5	1057.7	1075.1	1086.0
40°	983.7	992.4	1020.7	1042.4	1055.5
42.5°	938.0	951.0	983.7	1012.0	1029.4
45°	894.4	909.7	944.5	983.7	1003.3
47.5°	846.6	864.0	903.1	953.2	972.8
50°	796.5	813.9	861.8	918.4	940.1
52.5°	746.5	766.0	822.6	883.6	909.7
55°	692.0	713.8	783.5	848.7	877.0
57.5°	635.5	661.6	739.9	809.6	840.0
60°	576.7	609.4	696.4	770.4	803.0
62.5°	515.8	554.9	652.9	731.2	766.0
65°	457.0	500.5	607.2	689.9	726.9
67.5°	393.9	448.3	561.5	650.7	685.5
70°	330.8	393.9	513.6	605.0	639.8
72.5°	267.7	343.8	465.7	548.4	548.4
75°	206.7	291.6	415.7	413.5	400.4
77.5°	156.7	243.7	341.7	291.6	293.8
80°	113.2	195.9	215.4	215.4	217.6
82.5°	76.2	150.2	139.3	137.1	141.5
85°	45.7	69.6	71.8	65.3	67.5
87.5°	21.8	23.9	19.6	13.1	13.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)