

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: P230422

Luminaire Tested: **24CZ-LD5-70-SQP-UNV-L940-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230422
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-L940-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SQP LENS
Light Source: (168) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4317.5 lumens
Efficiency: N/A
Efficacy: 67.2 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

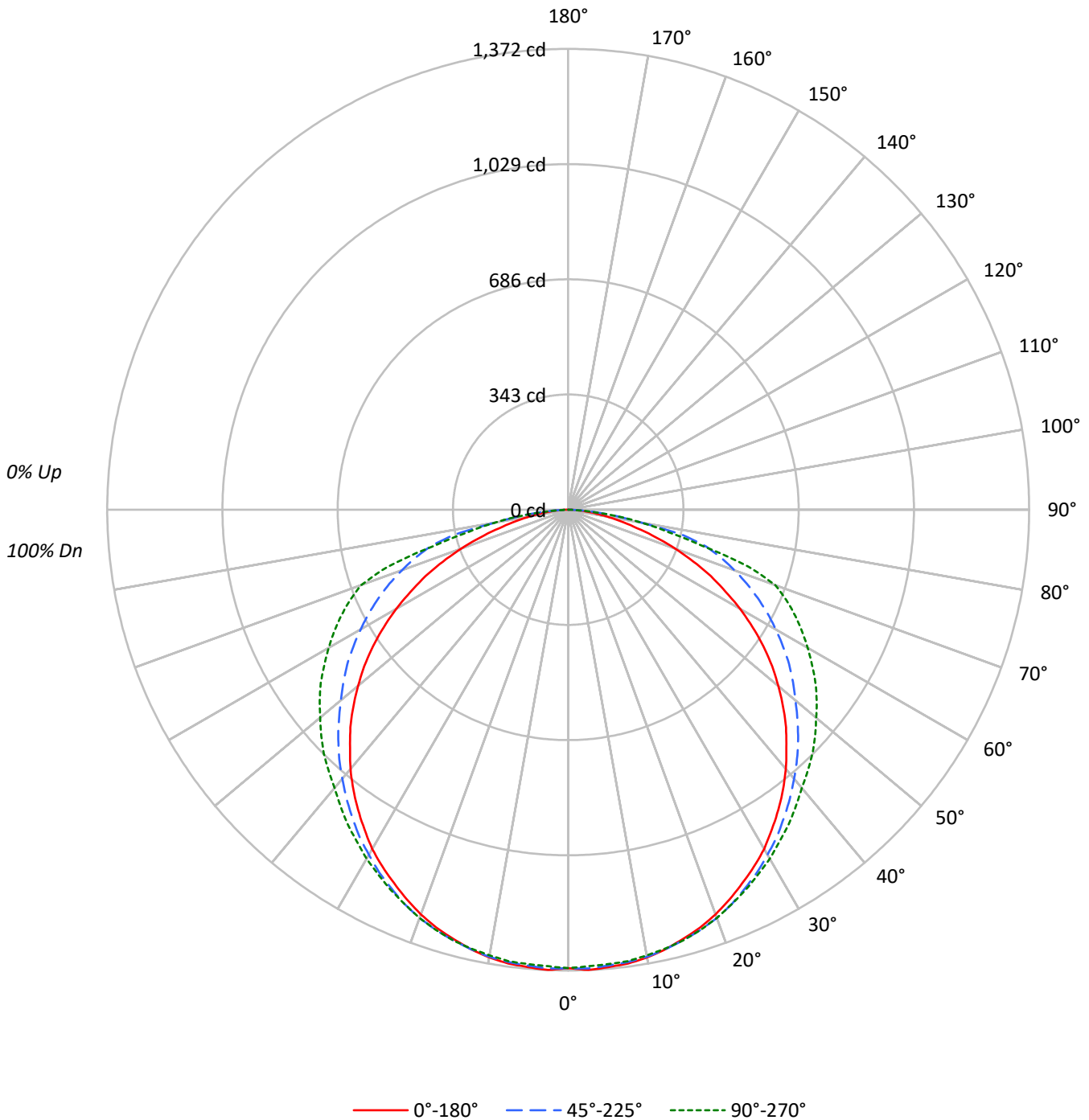
Input Watts (W): 64.22
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1836	1836	1836
5°	1846	1840	1834
10°	1849	1846	1840
15°	1842	1848	1848
20°	1836	1852	1852
25°	1821	1847	1854
30°	1812	1843	1864
35°	1791	1839	1879
40°	1770	1837	1900
45°	1744	1842	1956
50°	1708	1849	2017
55°	1664	1883	2108
60°	1590	1920	2214
65°	1491	1981	2372
70°	1334	2070	2579
75°	1102	2215	2133
80°	899	1711	1728
85°	722	1136	1067



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.6	3.0
10°-20°	374.0	8.7
20°-30°	571.7	13.2
30°-40°	699.2	16.2
40°-50°	748.1	17.3
50°-60°	716.4	16.6
60°-70°	606.0	14.0
70°-80°	384.1	8.9
80°-90°	88.4	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°	1075.3	24.9
0°-40°	1774.5	41.1
0°-60°	3239.0	75.0
0°-90°	4317.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4317.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1365	1365	1365	1365	1365	
5°	1367	1360	1363	1360	1358	130
15°	1322	1320	1327	1327	1327	374
25°	1227	1227	1244	1249	1249	566
35°	1090	1097	1120	1135	1144	682
45°	917	932	968	1008	1028	706
55°	709	732	803	870	899	633
65°	468	513	622	707	745	461
75°	212	299	426	424	410	230
85°	47	71	74	67	69	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1364.8	1364.8	1364.8	1364.8	1364.8
2.5°	1371.5	1364.8	1367.1	1364.8	1360.4
5°	1367.1	1360.4	1362.6	1360.4	1358.2
7.5°	1362.6	1355.9	1358.2	1355.9	1355.9
10°	1353.7	1347.0	1351.5	1349.2	1347.0
12.5°	1340.3	1335.9	1340.3	1338.1	1338.1
15°	1322.5	1320.2	1326.9	1326.9	1326.9
17.5°	1304.6	1302.4	1311.3	1311.3	1311.3
20°	1282.3	1280.1	1293.5	1293.5	1293.5
22.5°	1255.6	1253.3	1271.2	1271.2	1271.2
25°	1226.6	1226.6	1244.4	1248.9	1248.9
27.5°	1197.6	1197.6	1217.7	1224.3	1224.3
30°	1166.4	1166.4	1186.4	1195.4	1199.8
32.5°	1128.4	1132.9	1155.2	1166.4	1170.8
35°	1090.5	1097.2	1119.5	1135.1	1144.1
37.5°	1050.4	1057.1	1083.8	1101.7	1112.8
40°	1008.0	1016.9	1045.9	1068.2	1081.6
42.5°	961.2	974.6	1008.0	1037.0	1054.9
45°	916.6	932.2	967.9	1008.0	1028.1
47.5°	867.5	885.4	925.5	976.8	996.9
50°	816.2	834.1	883.1	941.1	963.4
52.5°	764.9	785.0	843.0	905.4	932.2
55°	709.2	731.5	802.8	869.8	898.7
57.5°	651.2	678.0	758.2	829.6	860.8
60°	591.0	624.4	713.6	789.5	822.9
62.5°	528.5	568.7	669.0	749.3	785.0
65°	468.3	512.9	622.2	707.0	744.9
67.5°	403.7	459.4	575.4	666.8	702.5
70°	339.0	403.7	526.3	620.0	655.7
72.5°	274.3	352.4	477.2	562.0	562.0
75°	211.9	298.8	426.0	423.7	410.3
77.5°	160.6	249.8	350.1	298.8	301.1
80°	116.0	200.7	220.8	220.8	223.0
82.5°	78.1	153.9	142.7	140.5	145.0
85°	46.8	71.4	73.6	66.9	69.1
87.5°	22.3	24.5	20.1	13.4	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)