

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: P230418

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230418
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-LD5-65-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: 4010.1 lumens
Efficiency: N/A
Efficacy: 69.6 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

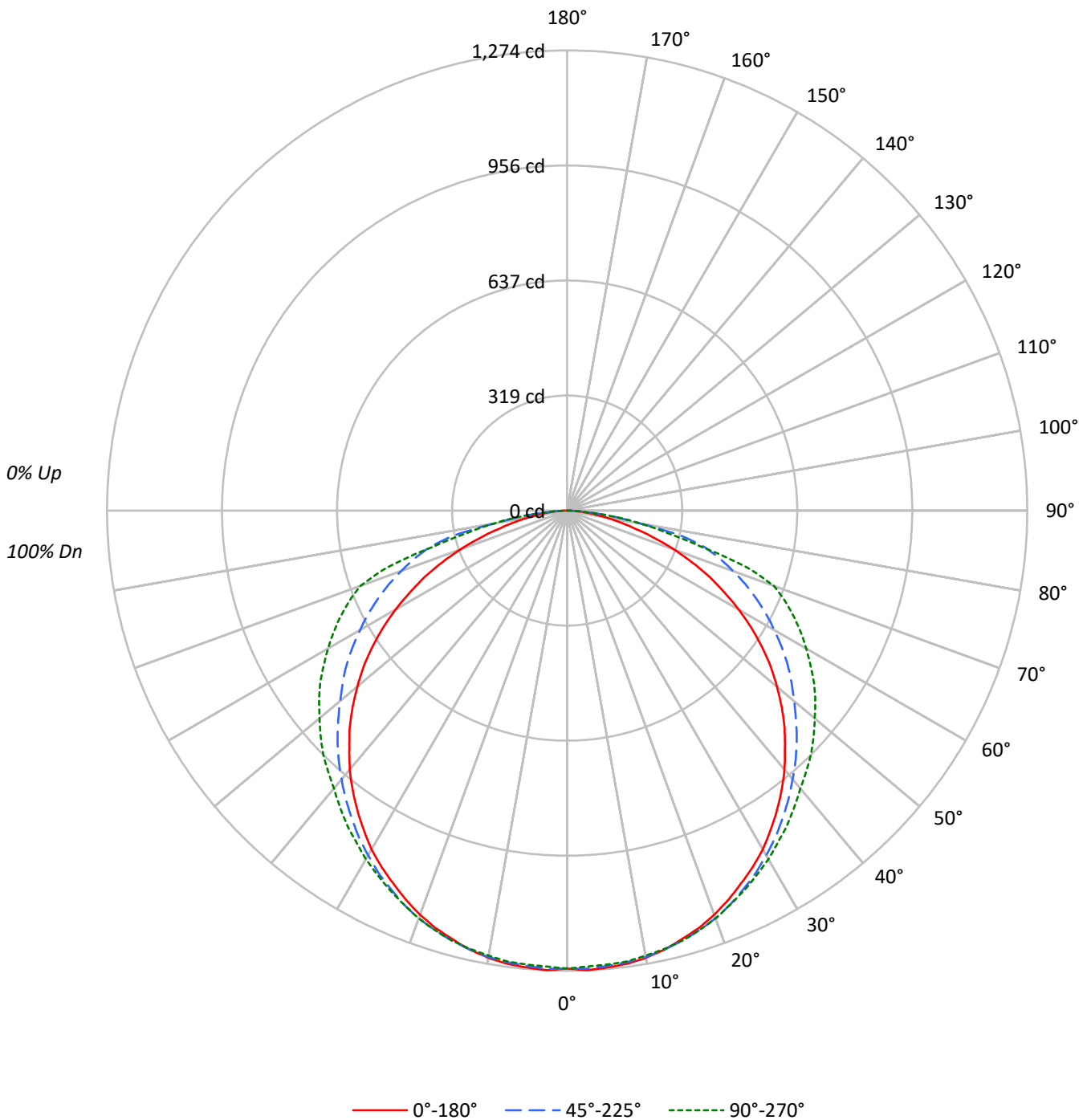
Input Watts (W): 57.64
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	108	103	98	94	105	101	97	93	96	93	90	92	90	87	89	87	84	82			82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67			67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	63	58	56			56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47			47
5	74	61	51	45	72	60	51	44	57	50	44	55	49	43	54	48	43	41			41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35			35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31			31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	29	28			28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25			25
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	35	28	24	22			22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1706	1706	1706
5°	1715	1709	1704
10°	1718	1715	1709
15°	1711	1717	1717
20°	1705	1720	1720
25°	1691	1716	1722
30°	1683	1712	1731
35°	1664	1708	1745
40°	1644	1706	1764
45°	1620	1711	1817
50°	1587	1717	1873
55°	1545	1749	1958
60°	1477	1784	2057
65°	1385	1840	2202
70°	1238	1923	2396
75°	1023	2057	1981
80°	834	1589	1605
85°	672	1056	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.4	3.0
10°-20°	347.4	8.7
20°-30°	531.0	13.2
30°-40°	649.4	16.2
40°-50°	694.8	17.3
50°-60°	665.4	16.6
60°-70°	562.8	14.0
70°-80°	356.8	8.9
80°-90°	82.1	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°	998.8	24.9
0°-40°	1648.2	41.1
0°-60°	3008.4	75.0
0°-90°	4010.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4010.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1270	1264	1266	1264	1262	121
15°	1228	1226	1232	1232	1232	347
25°	1139	1139	1156	1160	1160	526
35°	1013	1019	1040	1054	1063	634
45°	851	866	899	936	955	656
55°	659	679	746	808	835	588
65°	435	476	578	657	692	428
75°	197	278	396	394	381	214
85°	44	66	68	62	64	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1267.7	1267.7	1267.7	1267.7	1267.7
2.5°	1273.9	1267.7	1269.7	1267.7	1263.5
5°	1269.7	1263.5	1265.6	1263.5	1261.5
7.5°	1265.6	1259.4	1261.5	1259.4	1259.4
10°	1257.3	1251.1	1255.2	1253.2	1251.1
12.5°	1244.9	1240.7	1244.9	1242.8	1242.8
15°	1228.3	1226.2	1232.5	1232.5	1232.5
17.5°	1211.7	1209.7	1218.0	1218.0	1218.0
20°	1191.0	1189.0	1201.4	1201.4	1201.4
22.5°	1166.2	1164.1	1180.7	1180.7	1180.7
25°	1139.2	1139.2	1155.8	1160.0	1160.0
27.5°	1112.3	1112.3	1131.0	1137.2	1137.2
30°	1083.3	1083.3	1102.0	1110.2	1114.4
32.5°	1048.1	1052.2	1073.0	1083.3	1087.5
35°	1012.9	1019.1	1039.8	1054.3	1062.6
37.5°	975.6	981.8	1006.7	1023.2	1033.6
40°	936.2	944.5	971.5	992.2	1004.6
42.5°	892.8	905.2	936.2	963.2	979.7
45°	851.3	865.8	899.0	936.2	954.9
47.5°	805.8	822.3	859.6	907.3	925.9
50°	758.1	774.7	820.3	874.1	894.8
52.5°	710.5	729.1	783.0	841.0	865.8
55°	658.7	679.4	745.7	807.8	834.8
57.5°	604.8	629.7	704.3	770.5	799.5
60°	548.9	580.0	662.8	733.3	764.3
62.5°	490.9	528.2	621.4	696.0	729.1
65°	435.0	476.4	577.9	656.6	691.8
67.5°	374.9	426.7	534.4	619.3	652.5
70°	314.8	374.9	488.8	575.8	609.0
72.5°	254.8	327.3	443.3	522.0	522.0
75°	196.8	277.6	395.6	393.6	381.1
77.5°	149.1	232.0	325.2	277.6	279.6
80°	107.7	186.4	205.1	205.1	207.1
82.5°	72.5	142.9	132.6	130.5	134.6
85°	43.5	66.3	68.4	62.1	64.2
87.5°	20.7	22.8	18.6	12.4	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)