

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: P388663

Luminaire Tested: **24CZ2-40VHE-SQR-UNV-L940-CD1-SWPD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P388663
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40VHE-SQR-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3274.9 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

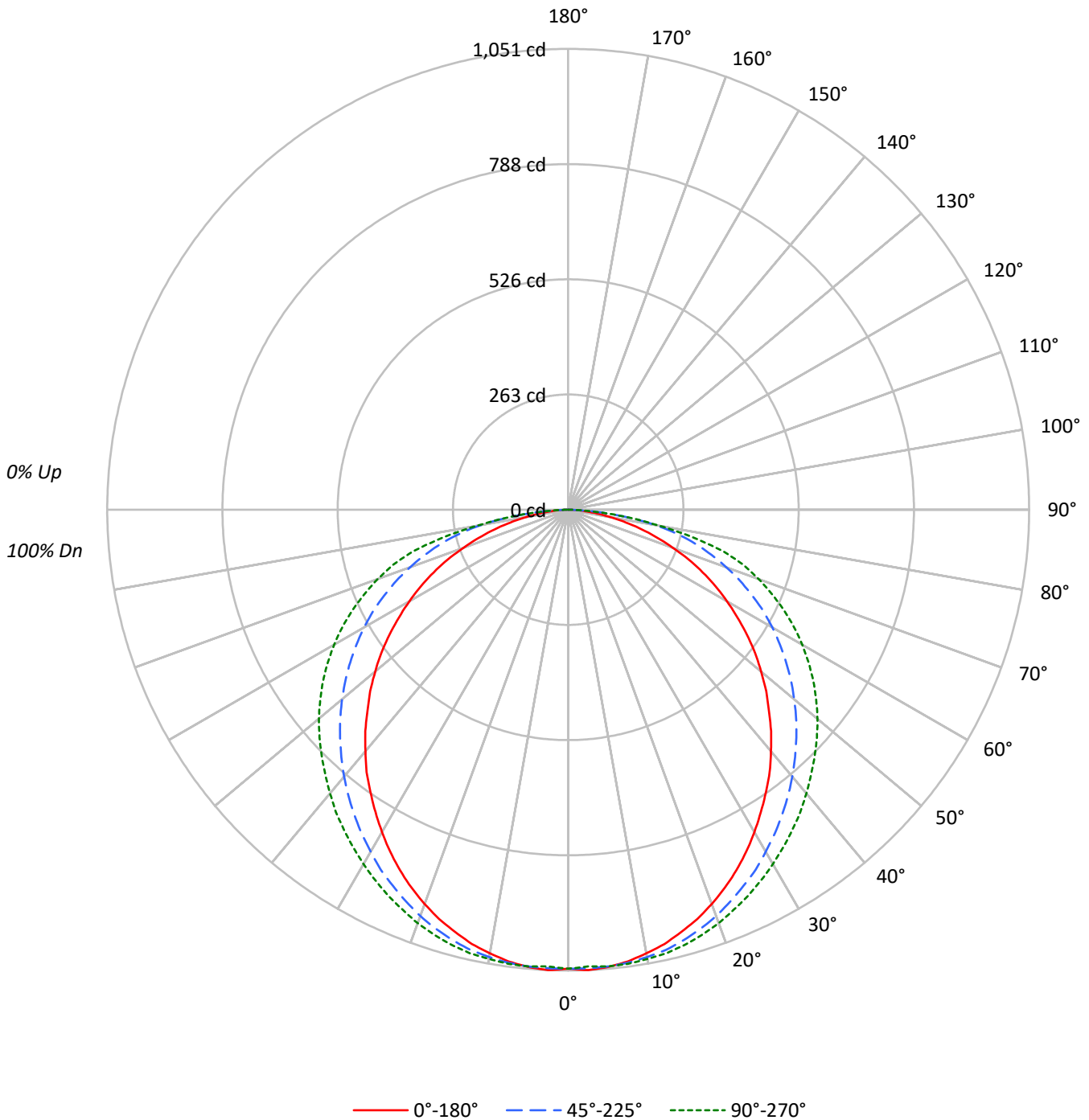
Input Watts (W): 26.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	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	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1408	1408	1408
5°	1414	1412	1412
10°	1404	1415	1421
15°	1389	1416	1431
20°	1370	1412	1437
25°	1347	1405	1442
30°	1319	1400	1450
35°	1291	1396	1464
40°	1263	1396	1483
45°	1231	1399	1512
50°	1202	1408	1553
55°	1167	1423	1601
60°	1126	1446	1659
65°	1078	1473	1728
70°	1000	1510	1817
75°	905	1563	1900
80°	762	1567	1634
85°	584	1186	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.4	3.0
10°-20°	285.9	8.7
20°-30°	434.2	13.3
30°-40°	528.2	16.1
40°-50°	562.4	17.2
50°-60°	535.6	16.4
60°-70°	447.9	13.7
70°-80°	298.6	9.1
80°-90°	82.6	2.5
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°	819.5	25.0
0°-40°	1347.7	41.2
0°-60°	2445.7	74.7
0°-90°	3274.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3274.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1047	1040	1046	1046	1046	99
15°	997	999	1016	1024	1027	281
25°	907	919	946	962	971	418
35°	786	809	850	878	891	492
45°	647	681	735	776	795	500
55°	498	541	607	660	682	445
65°	338	388	463	520	543	334
75°	174	229	301	352	366	184
85°	38	70	77	76	77	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.8	1046.8	1046.8	1046.8	1046.8
2.5°	1051.1	1043.6	1046.8	1046.8	1042.5
5°	1046.8	1040.3	1045.7	1045.7	1045.7
7.5°	1039.2	1033.8	1042.5	1044.7	1044.7
10°	1027.4	1025.2	1036.0	1039.2	1040.3
12.5°	1014.4	1013.3	1028.4	1032.8	1036.0
15°	997.1	999.2	1016.5	1024.1	1027.4
17.5°	978.7	983.0	1002.5	1013.3	1016.5
20°	957.1	963.5	986.3	997.1	1003.6
22.5°	933.3	943.0	966.8	979.8	987.3
25°	907.3	919.2	946.2	962.5	971.1
27.5°	879.2	894.3	925.7	944.1	952.7
30°	848.9	866.2	900.8	922.5	933.3
32.5°	817.6	838.1	876.0	899.7	912.7
35°	786.2	808.9	850.0	878.1	891.1
37.5°	754.8	777.5	823.0	853.2	869.5
40°	719.1	746.2	794.8	828.4	844.6
42.5°	684.5	713.7	765.6	802.4	819.7
45°	646.7	681.3	735.4	776.5	794.8
47.5°	612.1	646.7	705.1	748.3	768.9
50°	574.2	611.0	672.6	720.2	741.9
52.5°	537.5	575.3	640.2	691.0	712.7
55°	497.5	540.7	606.7	659.7	682.4
57.5°	457.4	503.9	572.1	627.2	649.9
60°	418.5	466.1	537.5	592.6	616.4
62.5°	379.6	427.2	501.8	558.0	580.7
65°	338.5	388.2	462.8	520.2	542.9
67.5°	297.4	349.3	423.9	481.2	502.9
70°	254.1	309.3	383.9	440.1	461.8
72.5°	214.1	269.3	342.8	398.0	418.5
75°	174.1	229.3	300.6	351.5	365.5
77.5°	135.2	190.3	254.1	287.7	290.9
80°	98.4	150.3	202.2	212.0	210.9
82.5°	66.0	112.5	139.5	140.6	143.8
85°	37.8	70.3	76.8	75.7	76.8
87.5°	15.1	24.9	21.6	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)