

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: P388590

Luminaire Tested: **24CZ2-35VHE-SQR-UNV-L940-CD1-SDWPD1-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: P388590
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: 24CZ2-35VHE-SQR-UNV-L940-CD1-SDWPD1-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: 2822.3 lumens
Efficiency: N/A
Efficacy: 123.8 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

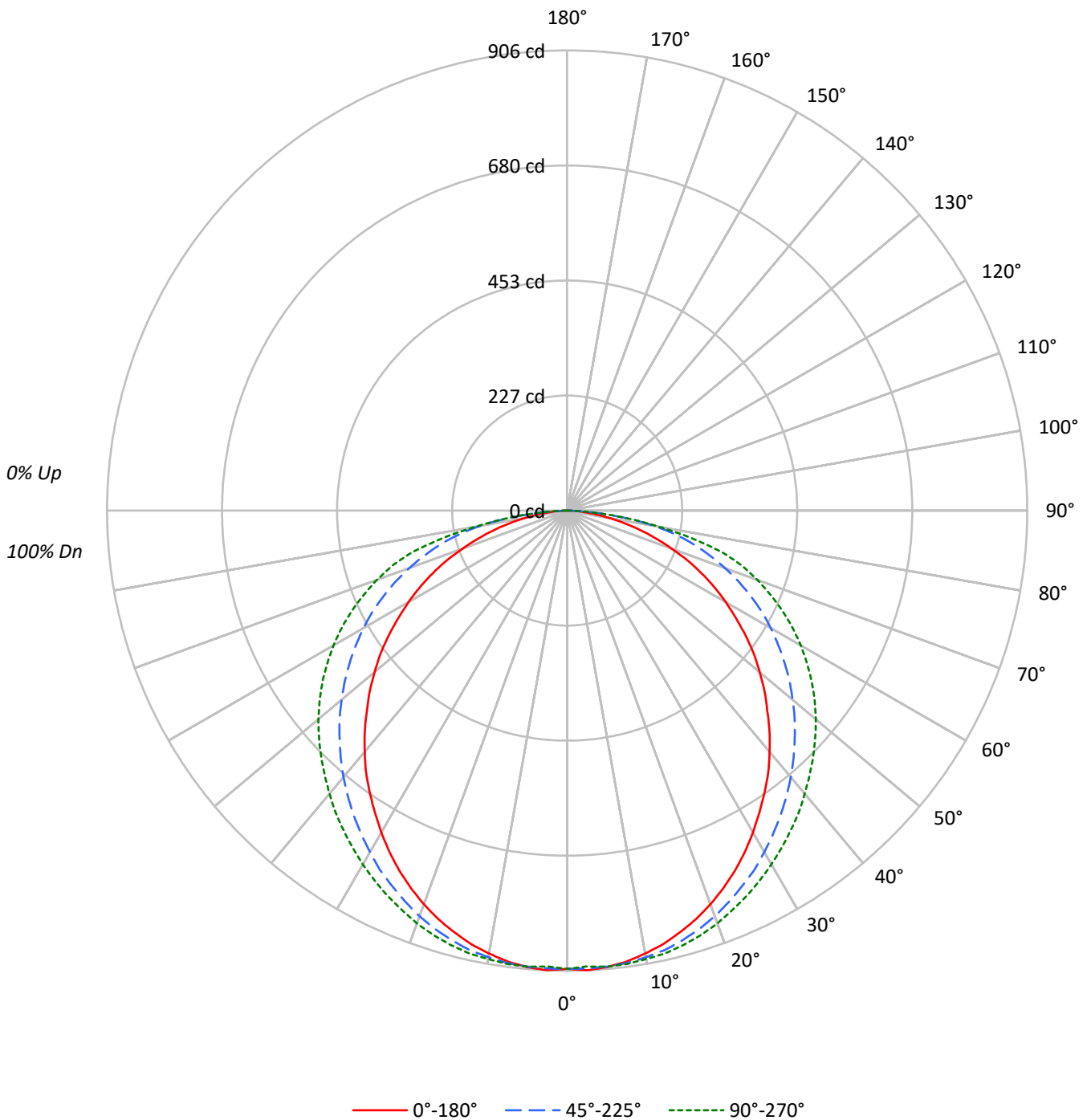
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1214	1214	1214
5°	1218	1217	1217
10°	1210	1220	1225
15°	1197	1220	1233
20°	1181	1217	1238
25°	1161	1211	1242
30°	1137	1206	1250
35°	1113	1203	1261
40°	1089	1203	1278
45°	1060	1206	1303
50°	1036	1213	1338
55°	1006	1226	1380
60°	971	1246	1429
65°	929	1270	1489
70°	862	1301	1566
75°	780	1347	1638
80°	657	1351	1408
85°	503	1022	1022



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	3.0
10°-20°	246.4	8.7
20°-30°	374.2	13.3
30°-40°	455.2	16.1
40°-50°	484.6	17.2
50°-60°	461.6	16.4
60°-70°	386.0	13.7
70°-80°	257.4	9.1
80°-90°	71.2	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°	706.3	25.0
0°-40°	1161.5	41.2
0°-60°	2107.7	74.7
0°-90°	2822.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2822.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	902	897	901	901	901	86
15°	859	861	876	883	885	242
25°	782	792	816	830	837	360
35°	678	697	732	757	768	424
45°	557	587	634	669	685	431
55°	429	466	523	568	588	383
65°	292	335	399	448	468	288
75°	150	198	259	303	315	159
85°	33	61	66	65	66	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.1	902.1	902.1	902.1	902.1
2.5°	905.9	899.3	902.1	902.1	898.4
5°	902.1	896.6	901.2	901.2	901.2
7.5°	895.6	891.0	898.4	900.3	900.3
10°	885.4	883.5	892.8	895.6	896.6
12.5°	874.2	873.3	886.3	890.0	892.8
15°	859.3	861.1	876.0	882.6	885.4
17.5°	843.4	847.2	863.9	873.3	876.0
20°	824.8	830.4	850.0	859.3	864.9
22.5°	804.3	812.7	833.2	844.4	850.9
25°	781.9	792.2	815.5	829.5	836.9
27.5°	757.7	770.7	797.8	813.6	821.1
30°	731.6	746.5	776.3	795.0	804.3
32.5°	704.6	722.3	754.9	775.4	786.6
35°	677.5	697.1	732.5	756.8	767.9
37.5°	650.5	670.1	709.2	735.3	749.3
40°	619.8	643.1	685.0	713.9	727.9
42.5°	589.9	615.1	659.8	691.5	706.4
45°	557.3	587.1	633.7	669.2	685.0
47.5°	527.5	557.3	607.6	644.9	662.6
50°	494.9	526.6	579.7	620.7	639.3
52.5°	463.2	495.8	551.7	595.5	614.2
55°	428.7	466.0	522.8	568.5	588.1
57.5°	394.2	434.3	493.0	540.5	560.1
60°	360.7	401.7	463.2	510.7	531.2
62.5°	327.1	368.1	432.4	480.9	500.5
65°	291.7	334.6	398.9	448.3	467.8
67.5°	256.3	301.0	365.3	414.7	433.4
70°	219.0	266.5	330.8	379.3	398.0
72.5°	184.5	232.1	295.4	343.0	360.7
75°	150.0	197.6	259.1	302.9	315.0
77.5°	116.5	164.0	219.0	247.9	250.7
80°	84.8	129.5	174.3	182.7	181.7
82.5°	56.9	96.9	120.2	121.2	124.0
85°	32.6	60.6	66.2	65.2	66.2
87.5°	13.0	21.4	18.6	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)