

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: P388544

Luminaire Tested: **24CZ2-35-SQR-UNV-L940-CD1-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: P388544
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: 24CZ2-35-SQR-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

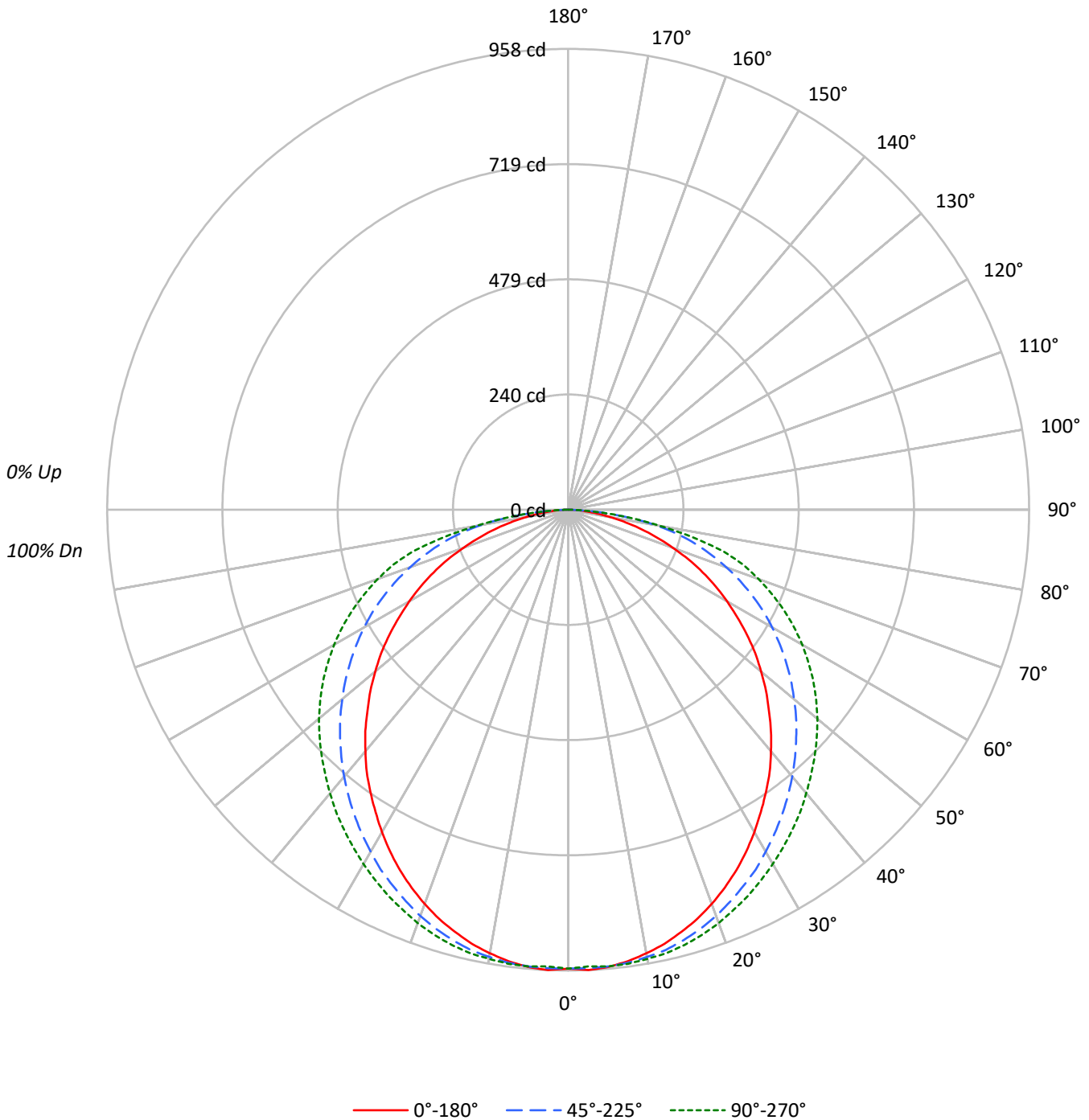
Lumens per Lamp: N/A
Luminaire Lumens: 2984.6 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 30.1
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°	1284	1284	1284
5°	1289	1287	1287
10°	1279	1290	1295
15°	1266	1290	1304
20°	1249	1287	1310
25°	1228	1280	1314
30°	1202	1276	1321
35°	1177	1272	1334
40°	1151	1272	1352
45°	1122	1275	1378
50°	1095	1283	1415
55°	1064	1297	1459
60°	1026	1318	1512
65°	982	1343	1575
70°	911	1376	1655
75°	825	1424	1732
80°	695	1428	1489
85°	533	1081	1081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	3.0
10°-20°	260.5	8.7
20°-30°	395.8	13.3
30°-40°	481.4	16.1
40°-50°	512.5	17.2
50°-60°	488.2	16.4
60°-70°	408.2	13.7
70°-80°	272.2	9.1
80°-90°	75.3	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°	746.9	25.0
0°-40°	1228.2	41.2
0°-60°	2228.9	74.7
0°-90°	2984.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2984.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	954	948	953	953	953	90
15°	909	911	926	933	936	256
25°	827	838	862	877	885	381
35°	716	737	775	800	812	448
45°	589	621	670	708	724	456
55°	453	493	553	601	622	405
65°	308	354	422	474	495	305
75°	159	209	274	320	333	168
85°	34	64	70	69	70	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	954.0	954.0	954.0	954.0	954.0
2.5°	958.0	951.1	954.0	954.0	950.1
5°	954.0	948.1	953.0	953.0	953.0
7.5°	947.1	942.2	950.1	952.1	952.1
10°	936.3	934.3	944.2	947.1	948.1
12.5°	924.5	923.5	937.3	941.2	944.2
15°	908.7	910.7	926.4	933.3	936.3
17.5°	891.9	895.9	913.6	923.5	926.4
20°	872.2	878.1	898.8	908.7	914.6
22.5°	850.5	859.4	881.1	892.9	899.8
25°	826.9	837.7	862.4	877.1	885.0
27.5°	801.3	815.1	843.6	860.4	868.3
30°	773.7	789.4	821.0	840.7	850.5
32.5°	745.1	763.8	798.3	820.0	831.8
35°	716.5	737.2	774.7	800.3	812.1
37.5°	687.9	708.6	750.0	777.6	792.4
40°	655.4	680.0	724.4	754.9	769.7
42.5°	623.9	650.5	697.8	731.3	747.1
45°	589.4	620.9	670.2	707.6	724.4
47.5°	557.8	589.4	642.6	682.0	700.7
50°	523.3	556.8	613.0	656.4	676.1
52.5°	489.8	524.3	583.5	629.8	649.5
55°	453.4	492.8	552.9	601.2	621.9
57.5°	416.9	459.3	521.4	571.6	592.3
60°	381.4	424.8	489.8	540.1	561.8
62.5°	345.9	389.3	457.3	508.5	529.2
65°	308.5	353.8	421.8	474.1	494.8
67.5°	271.0	318.3	386.3	438.6	458.3
70°	231.6	281.9	349.9	401.1	420.8
72.5°	195.1	245.4	312.4	362.7	381.4
75°	158.7	208.9	274.0	320.3	333.1
77.5°	123.2	173.5	231.6	262.2	265.1
80°	89.7	137.0	184.3	193.2	192.2
82.5°	60.1	102.5	127.1	128.1	131.1
85°	34.5	64.1	70.0	69.0	70.0
87.5°	13.8	22.7	19.7	14.8	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)