

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: LSI15655

Luminaire Tested: **112/1BX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: LSI15655
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 112/1BX
Description: 1 X 2 TROFFER LUMINAIRE WITH WHITE INTERIOR
Light Source: -
F40/30BX/SPX35. LUMEN RATING = 3150 LMS.
Ballast/Driver: ONE MAGNETEK C240I120RH BALLAST OPERATING AT 120 VAC AND 38 WATTS

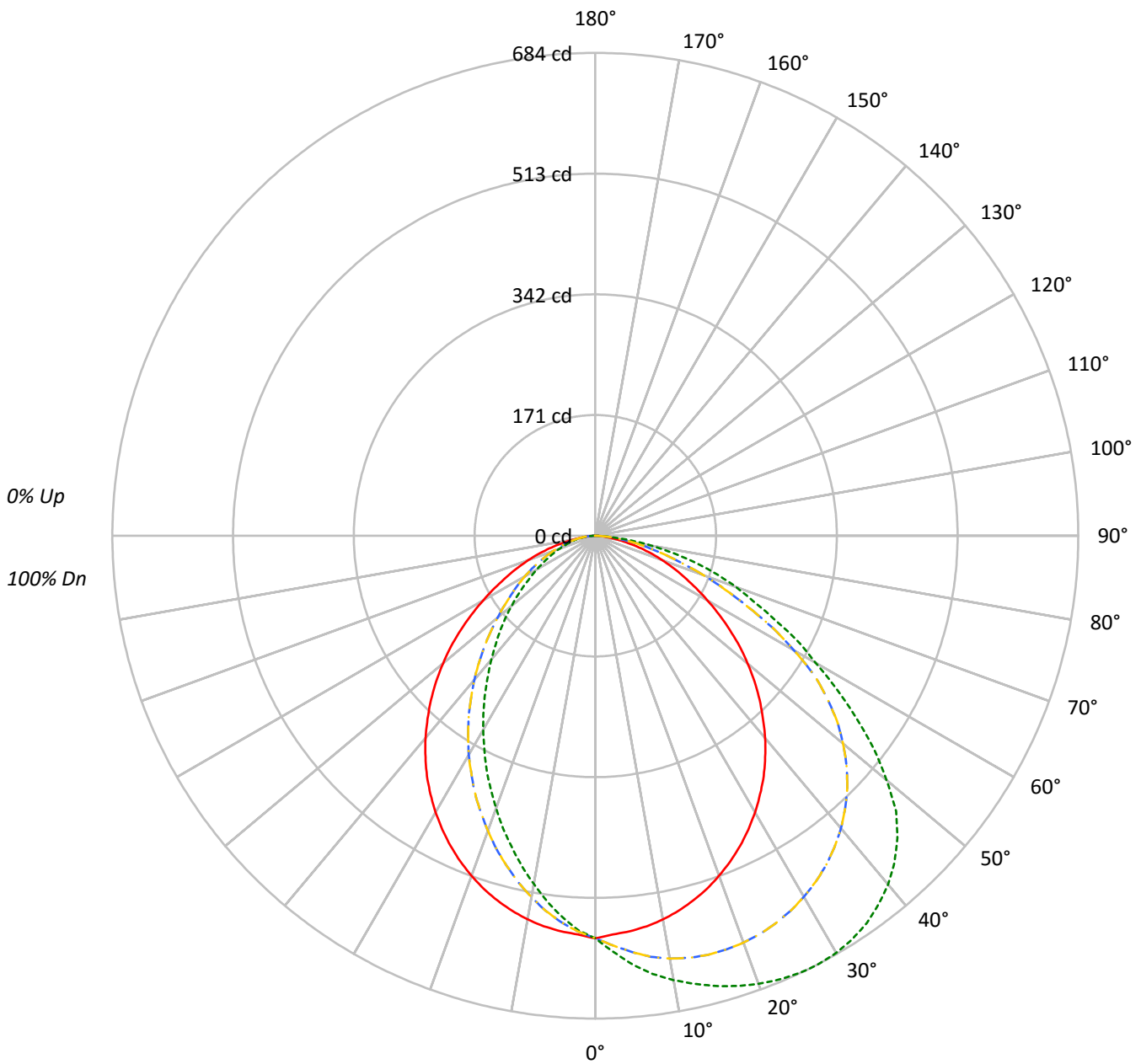
Summary

Lumens per Lamp: 3150 (1 lamp)
Luminaire Lumens: 1492.4 lumens
Efficiency: 47.4%
Efficacy: 39.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.3 / 1.34
Luminous Opening: Rectangular (W 0.9' x L: 1.92' x H: 0')
CIE Type: Direct

Input Watts (W): 38
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



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



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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	50	30	10	0	
RCR																						
0	56	56	56	56	55	55	55	55	53	53	53	50	50	50	48	48	48	47				47
1	52	50	48	46	51	49	47	45	47	45	44	45	44	43	43	42	41				40	
2	47	44	41	38	46	43	40	37	41	39	37	40	38	36	38	36	35				34	
3	43	38	35	32	42	38	34	32	36	33	31	35	33	30	34	32	30				29	
4	40	34	30	27	39	34	30	27	32	29	27	31	28	26	30	28	26				25	
5	37	31	26	23	36	30	26	23	29	26	23	28	25	23	27	25	23				22	
6	34	28	24	21	33	27	23	20	26	23	20	26	22	20	25	22	20				19	
7	31	25	21	18	31	25	21	18	24	21	18	23	20	18	23	20	18				17	
8	29	23	19	16	28	23	19	16	22	19	16	21	18	16	21	18	16				15	
9	27	21	17	15	27	21	17	15	20	17	15	20	17	14	19	16	14				14	
10	26	19	16	13	25	19	16	13	19	15	13	18	15	13	18	15	13				12	

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	3552	3552	3552	3552
5°	3517	3813	3517	3388
10°	3491	4044	3491	3170
15°	3451	4259	3451	2946
20°	3397	4478	3397	2722
25°	3333	4699	3333	2507
30°	3255	4908	3255	2284
35°	3161	5094	3161	2070
40°	3043	5246	3043	1861
45°	2899	5330	2899	1680
50°	2728	5215	2728	1502
55°	2523	4911	2523	1331
60°	2284	4486	2284	1189
65°	2052	4117	2052	1076
70°	1836	3854	1836	991
75°	1548	3514	1548	912
80°	1173	2902	1173	890
85°	758	1787	758	800



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	54.2	3.6	1.7
10°-20°	154.7	10.4	4.9
20°-30°	232.4	15.6	7.4
30°-40°	276.3	18.5	8.8
40°-50°	279.3	18.7	8.9
50°-60°	236.6	15.9	7.5
60°-70°	160.0	10.7	5.1
70°-80°	80.4	5.4	2.6
80°-90°	18.5	1.2	0.6
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	441.2	29.6	14.0
0°-40°	717.5	48.1	22.8
0°-60°	1233.5	82.6	39.2
0°-90°	1492.4	100.0	47.4
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1492.4	100.0	47.4

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	570	570	570	570	570	
5°	562	610	562	542	562	53
15°	535	660	535	457	535	151
25°	485	684	485	365	485	223
35°	416	670	416	272	416	260
45°	329	605	329	191	329	253
55°	232	452	232	123	232	208
65°	139	279	139	73	139	139
75°	64	146	64	38	64	68
85°	11	25	11	11	11	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	570.3	570.3	570.3	570.3	570.3	570.3	570.3	570.3	570.3	570.3	570.3
2.5°	565.3	570.8	580.9	587.2	590.1	587.2	580.9	570.8	565.3	562.9	561.1
5°	562.4	573.4	591.8	604.5	609.8	604.5	591.8	573.4	562.4	556.6	549.7
7.5°	558.0	574.7	601.5	618.8	626.2	618.8	601.5	574.7	558.0	548.4	536.1
10°	551.9	575.0	608.3	630.2	639.3	630.2	608.3	575.0	551.9	538.1	519.9
12.5°	544.2	573.6	612.4	639.0	650.1	639.0	612.4	573.6	544.2	526.8	503.1
15°	535.1	570.6	614.7	646.6	660.4	646.6	614.7	570.6	535.1	512.9	484.2
17.5°	524.7	565.3	614.8	652.1	668.8	652.1	614.8	565.3	524.7	498.5	465.4
20°	512.5	558.1	613.3	655.8	675.5	655.8	613.3	558.1	512.5	481.8	444.7
22.5°	499.4	549.5	610.3	658.0	680.5	658.0	610.3	549.5	499.4	464.7	423.9
25°	485.0	539.0	605.4	658.5	683.7	658.5	605.4	539.0	485.0	446.7	402.9
27.5°	469.1	526.9	598.9	656.9	684.3	656.9	598.9	526.9	469.1	427.6	380.1
30°	452.5	513.7	590.7	653.0	682.3	653.0	590.7	513.7	452.5	407.3	358.4
32.5°	434.3	498.7	580.9	646.4	677.5	646.4	580.9	498.7	434.3	386.3	335.2
35°	415.7	483.1	569.7	637.8	669.9	637.8	569.7	483.1	415.7	364.5	312.6
37.5°	395.1	465.1	556.3	626.0	658.6	626.0	556.3	465.1	395.1	342.2	288.9
40°	374.2	446.7	541.2	612.0	645.1	612.0	541.2	446.7	374.2	318.9	266.3
42.5°	351.6	426.6	523.6	594.2	627.1	594.2	523.6	426.6	351.6	295.5	243.8
45°	329.1	405.7	504.6	573.6	605.0	573.6	504.6	405.7	329.1	271.6	222.1
47.5°	305.8	383.4	482.7	548.2	577.6	548.2	482.7	383.4	305.8	248.8	200.6
50°	281.5	359.7	457.9	517.1	538.1	517.1	457.9	359.7	281.5	224.5	180.7
52.5°	257.6	335.2	431.4	478.3	498.2	478.3	431.4	335.2	257.6	202.1	162.0
55°	232.3	309.3	400.4	436.4	452.2	436.4	400.4	309.3	232.3	179.5	145.3
57.5°	208.0	282.6	367.4	391.9	405.9	391.9	367.4	282.6	208.0	159.1	130.0
60°	183.3	254.0	325.0	344.8	360.1	344.8	325.0	254.0	183.3	139.5	115.1
62.5°	160.7	226.0	283.8	303.8	323.1	303.8	283.8	226.0	160.7	122.6	101.3
65°	139.2	195.6	238.5	264.8	279.3	264.8	238.5	195.6	139.2	106.1	87.3
67.5°	119.7	166.4	198.2	226.2	241.8	226.2	198.2	166.4	119.7	91.2	75.0
70°	100.8	136.3	162.9	193.6	211.6	193.6	162.9	136.3	100.8	77.4	63.8
72.5°	81.8	106.5	127.4	162.9	179.1	162.9	127.4	106.5	81.8	63.6	52.8
75°	64.3	78.5	99.3	132.2	146.0	132.2	99.3	78.5	64.3	51.1	43.7
77.5°	47.1	55.1	75.0	101.3	112.0	101.3	75.0	55.1	47.1	39.7	35.1
80°	32.7	36.9	53.3	73.0	80.9	73.0	53.3	36.9	32.7	30.0	27.3
82.5°	19.8	21.5	34.3	45.8	50.4	45.8	34.3	21.5	19.8	21.8	20.2
85°	10.6	10.6	18.6	23.5	25.0	23.5	18.6	10.6	10.6	14.3	12.5
87.5°	4.1	3.7	5.1	5.3	5.3	5.3	5.1	3.7	4.1	6.0	5.3
90°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	570.3	570.3	570.3	570.3	570.3	570.3
2.5°	560.1	559.2	560.1	561.1	562.9	565.3
5°	544.4	541.8	544.4	549.7	556.6	562.4
7.5°	526.5	522.5	526.5	536.1	548.4	558.0
10°	507.2	501.1	507.2	519.9	538.1	551.9
12.5°	487.3	479.8	487.3	503.1	526.8	544.2
15°	465.4	456.8	465.4	484.2	512.9	535.1
17.5°	443.4	434.5	443.4	465.4	498.5	524.7
20°	420.2	410.6	420.2	444.7	481.8	512.5
22.5°	397.7	387.5	397.7	423.9	464.7	499.4
25°	375.3	364.7	375.3	402.9	446.7	485.0
27.5°	351.3	340.4	351.3	380.1	427.6	469.1
30°	328.5	317.6	328.5	358.4	407.3	452.5
32.5°	304.7	294.6	304.7	335.2	386.3	434.3
35°	283.2	272.2	283.2	312.6	364.5	415.7
37.5°	259.9	249.3	259.9	288.9	342.2	395.1
40°	238.3	228.9	238.3	266.3	318.9	374.2
42.5°	217.0	209.1	217.0	243.8	295.5	351.6
45°	198.2	190.7	198.2	222.1	271.6	329.1
47.5°	180.0	172.5	180.0	200.6	248.8	305.8
50°	161.8	155.0	161.8	180.7	224.5	281.5
52.5°	145.8	139.0	145.8	162.0	202.1	257.6
55°	130.0	122.6	130.0	145.3	179.5	232.3
57.5°	115.3	108.1	115.3	130.0	159.1	208.0
60°	100.6	95.4	100.6	115.1	139.5	183.3
62.5°	88.6	84.0	88.6	101.3	122.6	160.7
65°	77.0	73.0	77.0	87.3	106.1	139.2
67.5°	66.7	63.2	66.7	75.0	91.2	119.7
70°	57.2	54.4	57.2	63.8	77.4	100.8
72.5°	48.0	45.4	48.0	52.8	63.6	81.8
75°	39.9	37.9	39.9	43.7	51.1	64.3
77.5°	32.5	31.2	32.5	35.1	39.7	47.1
80°	25.9	24.8	25.9	27.3	30.0	32.7
82.5°	18.6	17.8	18.6	20.2	21.8	19.8
85°	11.6	11.2	11.6	12.5	14.3	10.6
87.5°	4.9	4.9	4.9	5.3	6.0	4.1
90°	0.5	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)