

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: 15660

Luminaire Tested: **242/2BX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 15660
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 242/2BX
Description: NEORAY 2 LAMP 2 X 2 TROFFER LUMINAIRE
WITH WHITE INTERIOR AND WHITE LENS OVER PERFORATIONS
Light Source: TWO GE 40 WATT CPFL LAMPS

F40/30BX/SPX35. LUMEN RATING = 6300 LMS.

Ballast/Driver: ONE MAGNETEK C240I120RH BALLAST OPERATING AT 120 VAC AND 64 WATTS

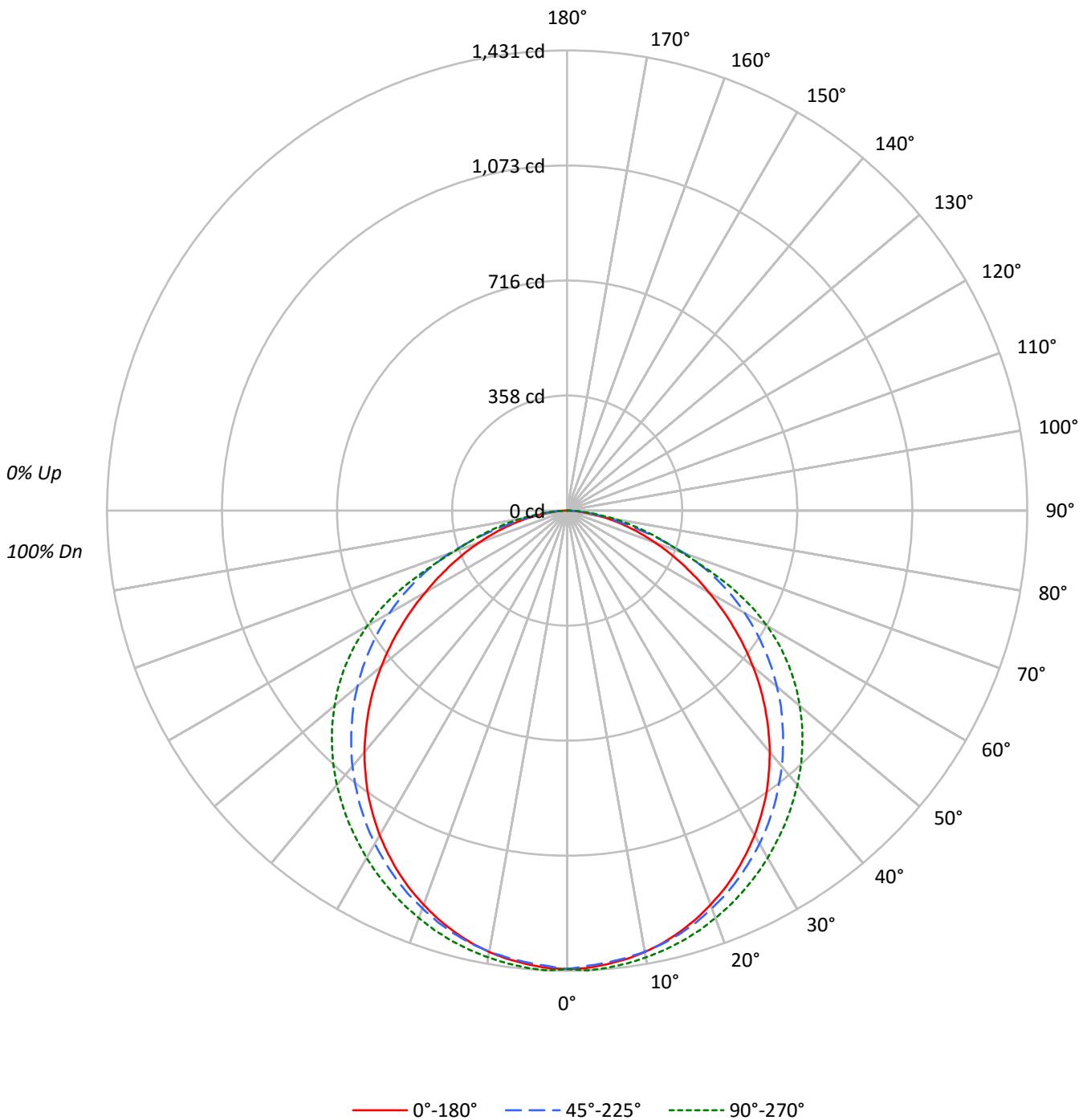
Summary

Lumens per Lamp: 6300 (1 lamp)
Luminaire Lumens: 4001.5 lumens
Efficiency: 63.5%
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.3 / 1.38
Luminous Opening: Rectangular (W 1.92' x L: 1.94' x H: 0')
CIE Type: Direct

Input Watts (W): 64
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: 15660
CATALOG NUMBER: 242/2BX

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	76	76	76	76	74	74	74	74	71	71	71	68	68	68	65	65	65	64
1	69	66	64	61	67	65	62	60	62	60	58	60	58	56	57	56	55	53
2	63	58	54	50	61	57	53	49	54	51	48	52	49	47	50	48	46	45
3	57	51	46	41	56	50	45	41	48	44	40	46	43	40	44	42	39	38
4	53	45	39	35	51	44	39	35	43	38	34	41	37	34	40	36	33	32
5	48	40	34	30	47	39	34	30	38	33	30	37	33	29	36	32	29	28
6	45	36	30	26	43	36	30	26	34	30	26	33	29	26	32	29	26	24
7	41	33	27	23	40	32	27	23	31	26	23	30	26	23	29	26	23	21
8	38	30	24	21	37	29	24	21	29	24	21	28	24	20	27	23	20	19
9	36	27	22	19	35	27	22	19	26	22	18	26	21	18	25	21	18	17
10	34	25	20	17	33	25	20	17	24	20	17	24	20	17	23	19	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4120	4120	4120
5°	4108	4094	4140
10°	4091	4086	4141
15°	4056	4073	4144
20°	4010	4048	4146
25°	3959	4023	4152
30°	3891	3993	4161
35°	3806	3958	4179
40°	3699	3919	4202
45°	3561	3874	4227
50°	3392	3827	4246
55°	3184	3766	4242
60°	2943	3685	4150
65°	2708	3556	3837
70°	2469	3280	3188
75°	2188	2638	2867
80°	1832	2090	2470
85°	1396	1605	1741



TEST NUMBER: 15660
 CATALOG NUMBER: 242/2BX

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	134.6	3.4	2.1
10°-20°	385.4	9.6	6.1
20°-30°	583.8	14.6	9.3
30°-40°	704.3	17.6	11.2
40°-50°	732.8	18.3	11.6
50°-60°	662.6	16.6	10.5
60°-70°	490.7	12.3	7.8
70°-80°	248.7	6.2	3.9
80°-90°	58.5	1.5	0.9
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°	1103.8	27.6	17.5
0°-40°	1808.1	45.2	28.7
0°-60°	3203.5	80.1	50.8
0°-90°	4001.5	100.0	63.5
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°	4001.5	100.0	63.5

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1426	1426	1426	1426	1426	
5°	1416	1416	1411	1419	1427	135
15°	1356	1359	1362	1371	1385	382
25°	1242	1249	1262	1285	1302	572
35°	1079	1092	1122	1159	1184	674
45°	871	897	948	1003	1034	671
55°	632	672	747	811	842	565
65°	396	440	520	555	561	394
75°	196	224	236	244	257	208
85°	42	45	48	51	52	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1425.8	1425.8	1425.8	1425.8	1425.8
2.5°	1423.9	1422.7	1417.4	1422.7	1431.2
5°	1416.1	1415.8	1411.2	1418.6	1427.3
7.5°	1407.4	1407.1	1402.8	1410.5	1420.6
10°	1394.0	1394.8	1392.6	1399.9	1411.2
12.5°	1377.0	1379.0	1379.4	1387.0	1399.6
15°	1355.9	1358.8	1361.5	1371.4	1385.3
17.5°	1332.4	1336.0	1340.9	1354.1	1368.5
20°	1304.0	1309.8	1316.4	1333.6	1348.2
22.5°	1274.7	1280.2	1291.1	1310.5	1327.0
25°	1241.6	1249.3	1261.8	1285.3	1302.3
27.5°	1204.4	1213.5	1229.9	1256.2	1275.8
30°	1166.0	1175.6	1196.7	1226.1	1247.1
32.5°	1122.9	1134.5	1160.0	1192.5	1216.0
35°	1078.9	1092.5	1121.9	1159.3	1184.5
37.5°	1030.1	1046.3	1080.2	1122.2	1149.4
40°	980.6	999.3	1038.9	1084.8	1113.8
42.5°	926.2	948.3	993.7	1044.2	1075.6
45°	871.3	896.6	947.9	1002.8	1034.3
47.5°	814.6	844.3	901.7	959.8	991.3
50°	754.5	786.6	851.3	911.9	944.4
52.5°	693.8	731.3	800.7	863.6	896.1
55°	632.0	672.1	747.4	810.7	842.0
57.5°	571.1	614.8	694.2	756.5	784.1
60°	509.2	555.6	637.6	695.6	718.0
62.5°	452.4	498.6	581.3	629.8	646.6
65°	396.1	440.5	520.1	554.9	561.2
67.5°	343.3	385.6	456.3	471.6	463.3
70°	292.2	330.7	388.2	379.0	377.3
72.5°	241.9	275.0	310.8	300.2	312.1
75°	196.0	223.7	236.3	243.9	256.8
77.5°	151.1	170.2	170.8	190.0	200.6
80°	110.1	121.3	125.6	141.1	148.4
82.5°	71.7	78.0	84.1	92.7	96.7
85°	42.1	44.8	48.4	51.1	52.5
87.5°	17.4	18.1	17.8	17.1	16.4
90°	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)