

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: BALLABS ESTIMATED TEST NO. 4475.2

Luminaire Tested: **77-S10**

Issue Date: 3/3/2020

**Test Information**

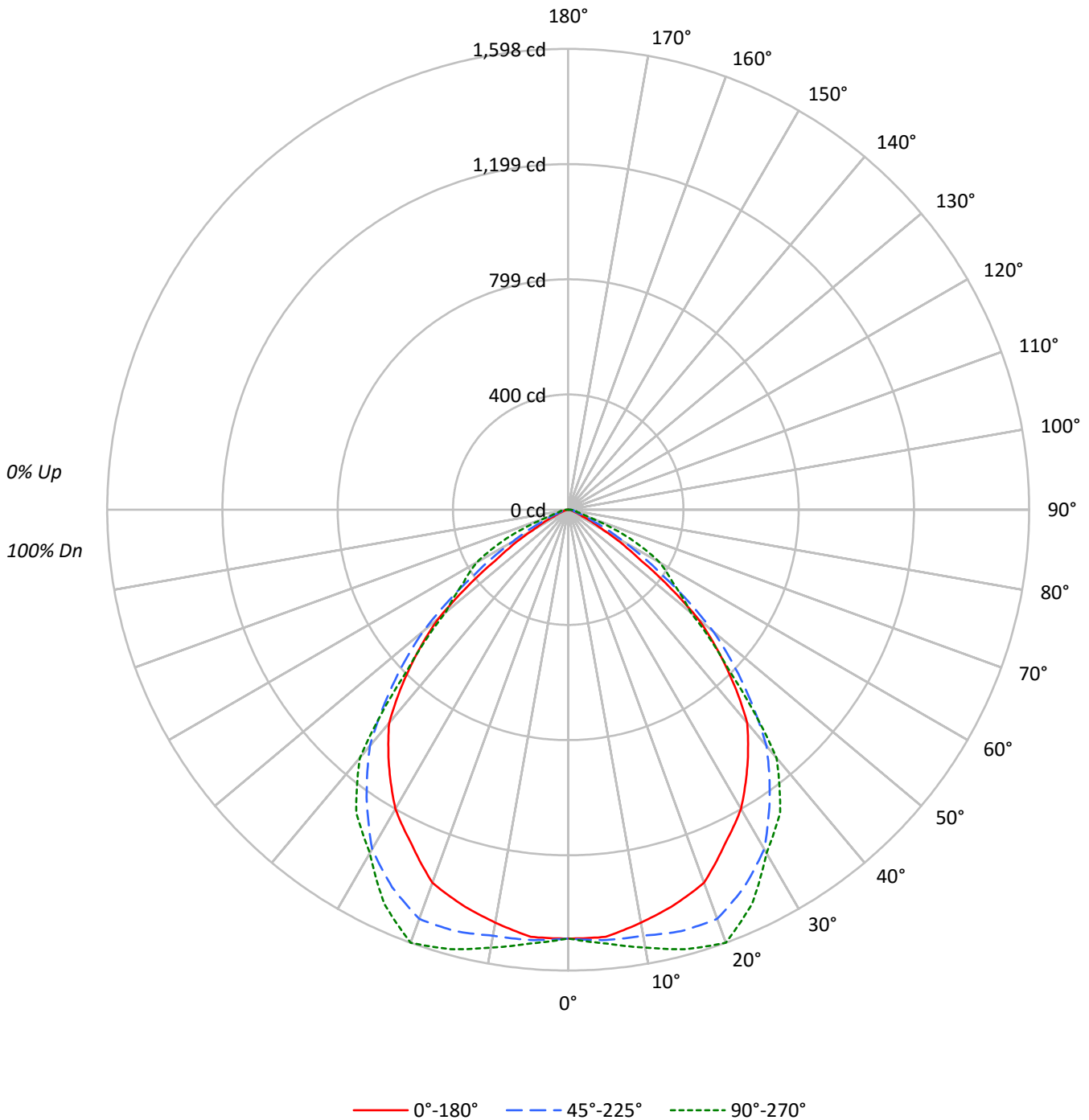
Test Method: LM-41-14  
Report Number: BALLABS ESTIMATED TEST NO. 4475.2  
Test Lab: BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 77-S10  
Description: 4' CEILING MOUNT, 2-LAMP STAGGERED WITH S10  
PARABOLIC BAFFLE LUM. WATTS= 85 REF=.99  
\*\*\*ESTIMATED FROM 8' T12 LAMP REPORT #4475.1\*\*\*\*  
Light Source: -  
F32T8/835  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2950 (2 lamps)  
Luminaire Lumens: 3157.1 lumens  
Efficiency: 53.5%  
Efficacy: 37.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.34 / 1.31  
Luminous Opening: Rectangular (W 0.64' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 85  
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	64	64	64	64	62	62	62	62	59	59	59	57	57	57	55	55	55	54
1	60	58	56	54	58	57	55	53	54	53	52	52	51	50	50	50	49	48
2	55	52	49	47	54	51	48	46	49	47	45	47	46	44	46	44	43	42
3	51	47	43	40	50	46	43	40	44	42	39	43	41	39	42	40	38	37
4	48	42	38	35	47	42	38	35	40	37	35	39	36	34	38	36	34	33
5	44	38	34	31	43	38	34	31	37	33	31	36	33	30	35	32	30	29
6	41	35	31	28	40	34	30	28	34	30	27	33	30	27	32	29	27	26
7	38	32	28	25	38	32	28	25	31	27	25	30	27	24	29	26	24	23
8	36	29	25	22	35	29	25	22	28	25	22	28	24	22	27	24	22	21
9	34	27	23	20	33	27	23	20	26	23	20	26	22	20	25	22	20	19
10	32	25	21	19	31	25	21	19	24	21	19	24	21	18	23	20	18	18

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6243	6243	6243
5°	6266	6313	6363
10°	6198	6394	6573
15°	6167	6576	6858
20°	6152	6746	7139
25°	5938	6689	6985
30°	5807	6588	6665
35°	5550	6242	6565
40°	5294	5858	6160
45°	4619	5112	4690
50°	3840	4284	3625
55°	2276	2979	3257
60°	1192	1856	3081
65°	536	1023	2354
70°	307	503	945
75°	227	389	551
80°	169	459	629
85°	289	819	963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	142.9	4.5	2.4
10°-20°	425.4	13.5	7.2
20°-30°	652.7	20.7	11.1
30°-40°	752.0	23.8	12.7
40°-50°	644.7	20.4	10.9
50°-60°	366.6	11.6	6.2
60°-70°	130.5	4.1	2.2
70°-80°	29.3	0.9	0.5
80°-90°	13.0	0.4	0.2
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°	1220.9	38.7	20.7
0°-40°	1973.0	62.5	33.4
0°-60°	2984.2	94.5	50.6
0°-90°	3157.1	100.0	53.5
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°	3157.1	100.0	53.5

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1487	1487	1487	1487	1487	
5°	1487	1488	1498	1510	1510	141
15°	1419	1444	1513	1559	1578	401
25°	1282	1348	1444	1489	1508	593
35°	1083	1186	1218	1237	1281	678
45°	778	873	861	805	790	599
55°	311	388	407	415	445	300
65°	54	67	103	183	237	68
75°	14	18	24	30	34	16
85°	6	11	17	19	20	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1487	1487	1487	1487	1487
5°	1487	1488	1498	1510	1510
10°	1454	1466	1500	1527	1542
15°	1419	1444	1513	1559	1578
20°	1377	1422	1510	1572	1598
25°	1282	1348	1444	1489	1508
30°	1198	1283	1359	1355	1375
35°	1083	1186	1218	1237	1281
40°	966	1070	1069	1102	1124
45°	778	873	861	805	790
50°	588	680	656	559	555
55°	311	388	407	415	445
60°	142	159	221	307	367
65°	54	67	103	183	237
70°	25	28	41	61	77
75°	14	18	24	30	34
80°	7	13	19	23	26
85°	6	11	17	19	20
90°	0	0	0	0	0

(END OF REPORT)