

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: 168p245

Luminaire Tested: **83DP-2T8-ST4D-2EB-SI-S22**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 168p245
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 83DP-2T8-ST4D-2EB-SI-S22
Description: NEORAY GEO DIRECT PENDANT MOUNT LUMINAIRE, 2 32T8, WITH
ACRYLIC DIFFUSER
Light Source: TWO - F032/735 - 2850 LUMENS - 32 WATTS
Ballast/Driver: B232IUNVHP-B

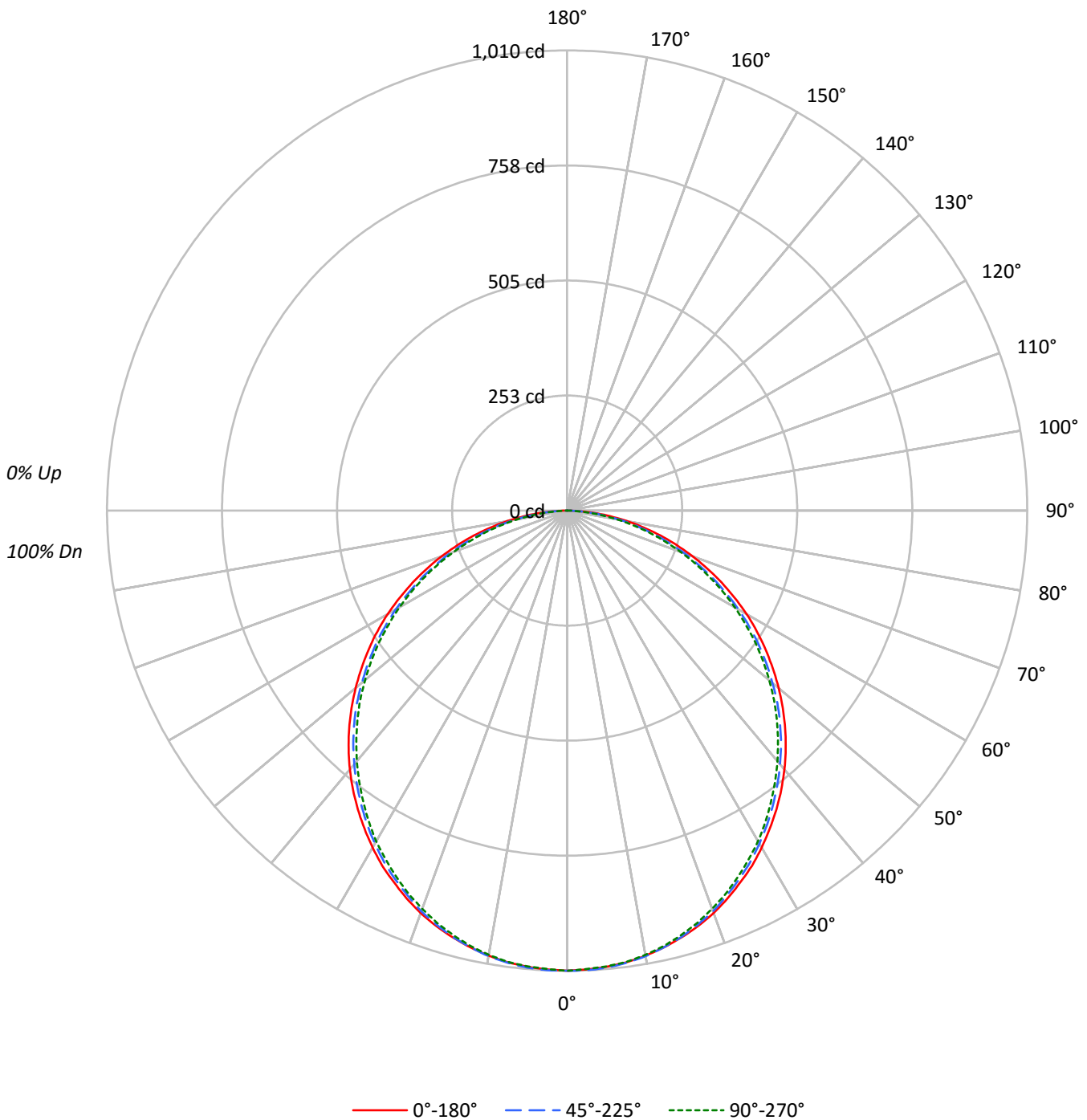
Summary

Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 2861.7 lumens
Efficiency: 50.2%
Efficacy: 53.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.23 / 1.36
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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	50	30	10	0	
RCR																						
0	60	60	60	60	58	58	58	58	56	56	56	53	53	53	51	51	51	50				50
1	55	52	50	48	53	51	49	47	49	47	46	47	46	44	45	44	43	42				42
2	50	45	42	39	48	44	41	38	43	40	38	41	39	37	39	38	36	35				35
3	45	40	36	32	44	39	35	32	37	34	31	36	33	31	35	32	30	29				29
4	41	35	31	27	40	35	30	27	33	30	27	32	29	26	31	28	26	25				25
5	38	31	27	24	37	31	27	23	30	26	23	29	25	23	28	25	23	22				22
6	35	28	24	21	34	28	24	20	27	23	20	26	23	20	25	22	20	19				19
7	33	26	21	18	32	25	21	18	24	21	18	24	20	18	23	20	18	17				17
8	30	23	19	16	29	23	19	16	22	19	16	22	18	16	21	18	16	15				15
9	28	21	17	15	28	21	17	15	21	17	14	20	17	14	20	17	14	13				13
10	27	20	16	13	26	20	16	13	19	16	13	19	15	13	18	15	13	12				12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6523	6523	6523
5°	6515	6528	6509
10°	6506	6512	6492
15°	6486	6479	6452
20°	6460	6433	6392
25°	6413	6364	6321
30°	6369	6294	6249
35°	6315	6213	6150
40°	6256	6129	6053
45°	6183	6037	5946
50°	6089	5908	5817
55°	5990	5776	5675
60°	5877	5619	5490
65°	5715	5410	5272
70°	5533	5174	5004
75°	5290	4841	4641
80°	4984	4389	4128
85°	4372	3483	2964



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	95.6	3.3	1.7
10°-20°	273.3	9.5	4.8
20°-30°	412.1	14.4	7.2
30°-40°	494.0	17.3	8.7
40°-50°	510.5	17.8	9.0
50°-60°	460.0	16.1	8.1
60°-70°	352.4	12.3	6.2
70°-80°	207.3	7.2	3.6
80°-90°	56.6	2.0	1.0
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°	781.0	27.3	13.7
0°-40°	1275.0	44.6	22.4
0°-60°	2245.5	78.5	39.4
0°-90°	2861.7	100.0	50.2
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°	2861.7	100.0	50.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1005	1005	1007	1008	1004	96
15°	970	970	969	968	965	274
25°	900	899	893	891	887	415
35°	801	797	788	783	780	501
45°	677	670	661	654	651	522
55°	532	524	513	505	504	475
65°	374	365	354	347	345	370
75°	212	203	194	188	186	224
85°	59	53	47	42	40	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010	1010	1010	1010	1010
2.5°	1008	1008	1010	1011	1007
5°	1005	1005	1007	1008	1004
7.5°	1000	1000	1001	1002	999
10°	992	992	993	993	990
12.5°	982	982	982	982	979
15°	970	970	969	968	965
17.5°	956	955	953	953	949
20°	940	939	936	934	930
22.5°	921	920	915	913	910
25°	900	899	893	891	887
27.5°	879	876	870	867	863
30°	854	851	844	840	838
32.5°	828	825	817	813	810
35°	801	797	788	783	780
37.5°	772	767	758	753	750
40°	742	736	727	721	718
42.5°	710	704	695	688	685
45°	677	670	661	654	651
47.5°	642	635	626	618	616
50°	606	598	588	580	579
52.5°	569	561	551	543	542
55°	532	524	513	505	504
57.5°	494	485	474	466	464
60°	455	445	435	426	425
62.5°	414	405	394	386	385
65°	374	365	354	347	345
67.5°	333	324	313	306	305
70°	293	283	274	266	265
72.5°	252	243	233	227	225
75°	212	203	194	188	186
77.5°	172	164	155	150	148
80°	134	126	118	112	111
82.5°	96	89	81	76	74
85°	59	53	47	42	40
87.5°	24	21	16	14	14
90°	0	0	0	0	0

(END OF REPORT)