

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P624718

Luminaire Tested: S930DIP-W530-X4-USTD-W

Issue Date: 11/3/2022

**Test Information**

Test Method: LM-79-2019  
Report Number: P624718  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35539-R2)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/3/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S930DIP-W530-X4-USTD-W  
Description: NEO-RAY COVERA DIRECT/INDIRECT 4-FOOT LED WaveStream LUMINAIRE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

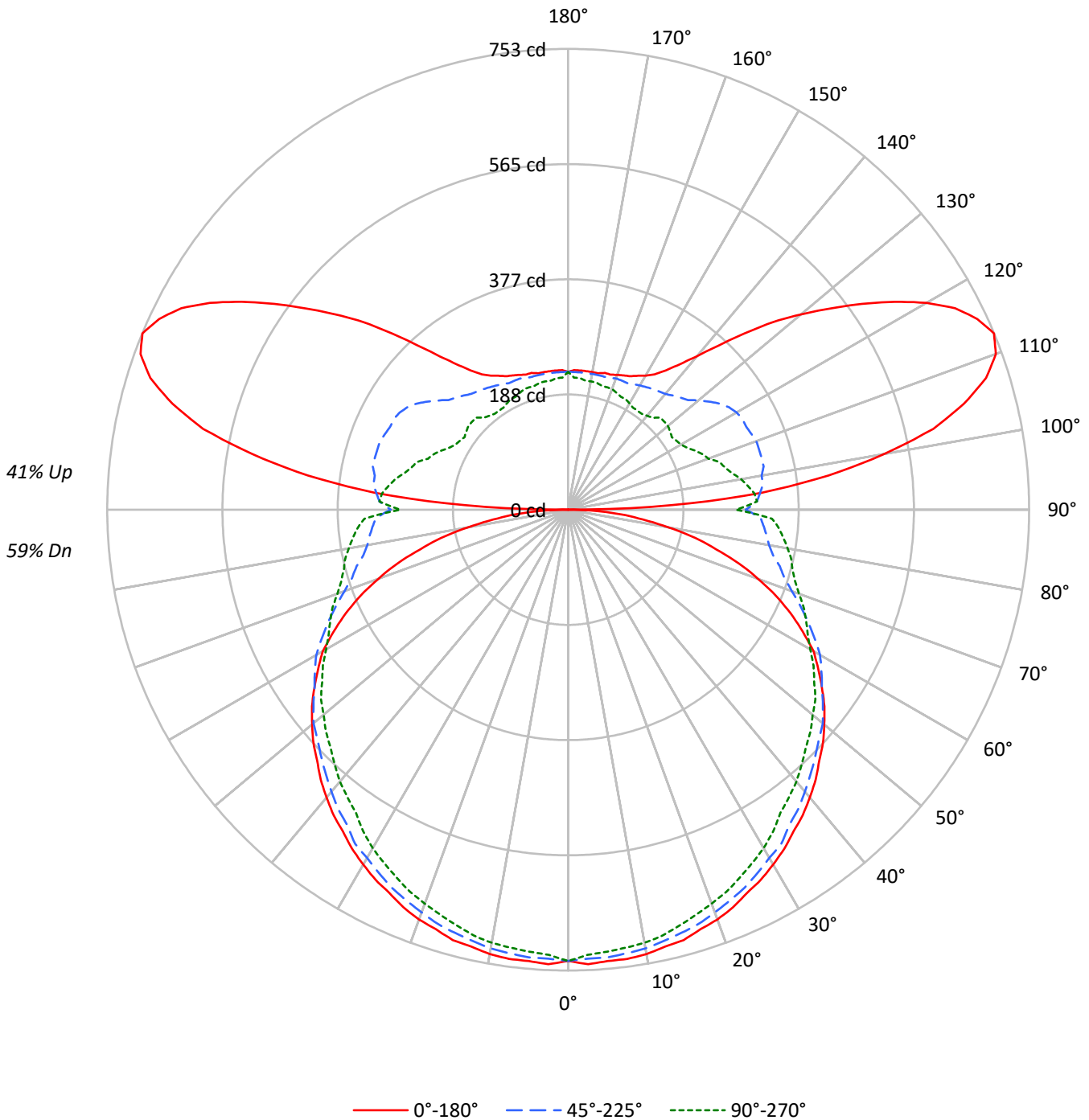
Lumens per Lamp: N/A  
Luminaire Lumens: 4992.7 lumens  
Efficiency: N/A  
Efficacy: 73.2 lumens/watt  
Spacing Criteria (0/90/45): 1.35 / 1.29 / 1.48  
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 3.83' x H: 0.17')  
CIE Type: General Diffuse

Input Watts (W): 68.2  
Input Voltage (V): 120  
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: 24 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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	97	92	87	82	90	85	81	77	73	70	67	63	60	58	53	51	49	44
2	87	78	71	65	81	73	67	61	63	58	53	54	50	46	45	42	39	35
3	79	68	60	53	73	63	56	50	55	49	44	46	42	38	39	35	32	28
4	72	60	51	44	66	56	48	42	48	42	37	41	36	32	34	30	27	24
5	66	53	44	37	61	49	41	35	43	36	31	36	31	27	31	27	23	20
6	61	47	38	32	56	44	36	30	38	32	27	33	28	23	28	23	20	17
7	56	43	34	28	52	40	32	26	35	28	23	30	24	21	25	21	18	15
8	52	39	30	24	48	36	29	23	31	25	21	27	22	18	23	19	16	13
9	48	35	27	22	45	33	26	21	29	23	18	25	20	16	21	17	14	12
10	45	32	25	19	42	30	23	18	26	21	16	23	18	15	20	16	13	11

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

	0°	45°	90°
0°	3105	3105	3105
5°	3118	3049	2999
10°	3129	3004	2944
15°	3138	2956	2874
20°	3144	2918	2813
25°	3148	2889	2760
30°	3176	2853	2714
35°	3202	2825	2646
40°	3257	2817	2636
45°	3310	2815	2617
50°	3401	2852	2632
55°	3498	2866	2654
60°	3625	2944	2684
65°	3656	2979	2782
70°	3631	3049	2927
75°	3499	3281	3194
80°	3242	3713	3652
85°	2789	4598	4328

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 90°  
 Luminance: 7749 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.0	1.4
10°-20°	202.8	4.1
20°-30°	314.5	6.3
30°-40°	394.4	7.9
40°-50°	440.1	8.8
50°-60°	451.5	9.0
60°-70°	420.4	8.4
70°-80°	358.3	7.2
80°-90°	300.6	6.0
90°-100°	343.2	6.9
100°-110°	420.6	8.4
110°-120°	398.2	8.0
120°-130°	314.2	6.3
130°-140°	221.5	4.4
140°-150°	151.8	3.0
150°-160°	105.5	2.1
160°-170°	63.6	1.3
170°-180°	21.4	0.4
0°-30°	587.2	11.8
0°-40°	981.6	19.7
0°-60°	1873.2	37.5
0°-90°	2952.6	59.1
90°-120°	1162.1	23.3
90°-150°	1849.5	37.0
90°-180°	2040.0	40.9
0°-180°	4992.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	740	740	734	734	725	71
15°	728	725	716	716	703	205
25°	691	688	682	679	663	320
35°	642	636	629	623	605	403
45°	580	574	571	568	549	449
55°	506	500	506	512	490	453
65°	401	410	432	438	429	395
75°	250	293	358	386	379	265
85°	86	222	321	346	346	86
90°	0	250	290	287	274	30
95°	318	346	315	312	305	298
105°	669	531	327	281	265	695
115°	737	558	321	247	228	723
125°	586	466	302	234	207	527
135°	407	342	259	225	213	319
145°	278	265	241	216	197	178
155°	241	238	228	219	204	112
165°	231	228	225	222	210	65
175°	228	228	225	225	216	22
180°	225	225	225	225	225	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	737.3	737.3	737.3	737.3	737.3
2.5°	743.4	740.3	734.2	737.3	728.0
5°	740.3	740.3	734.2	734.2	724.9
7.5°	740.3	737.3	731.1	731.1	721.8
10°	737.3	734.2	728.0	728.0	718.7
12.5°	731.1	731.1	721.8	721.8	712.6
15°	728.0	724.9	715.7	715.7	703.3
17.5°	718.7	715.7	709.5	706.4	694.1
20°	712.6	709.5	700.2	697.2	684.8
22.5°	703.3	700.2	691.0	687.9	675.6
25°	691.0	687.9	681.7	678.6	663.2
27.5°	681.7	678.6	669.4	666.3	650.9
30°	669.4	666.3	657.0	650.9	638.5
32.5°	657.0	650.9	647.8	638.5	623.1
35°	641.6	635.5	629.3	623.1	604.6
37.5°	629.3	623.1	616.9	610.8	592.3
40°	613.9	604.6	601.5	595.4	579.9
42.5°	598.4	589.2	586.1	583.0	564.5
45°	579.9	573.8	570.7	567.6	549.1
47.5°	564.5	555.3	555.3	552.2	536.7
50°	546.0	536.7	542.9	539.8	521.3
52.5°	527.5	521.3	524.4	527.5	509.0
55°	505.9	499.7	505.9	512.1	490.5
57.5°	484.3	481.2	490.5	493.6	475.1
60°	462.7	459.6	475.1	475.1	456.5
62.5°	431.9	434.9	453.5	456.5	441.1
65°	401.0	410.3	431.9	438.0	428.8
67.5°	367.1	385.6	410.3	425.7	416.4
70°	330.1	357.8	388.7	410.3	401.0
72.5°	293.1	327.0	370.2	397.9	388.7
75°	249.9	293.1	357.8	385.6	379.4
77.5°	212.8	262.2	342.4	376.3	373.3
80°	166.6	237.5	333.2	367.1	364.0
82.5°	123.4	222.1	327.0	357.8	354.7
85°	86.4	222.1	320.8	345.5	345.5
87.5°	46.3	234.4	314.6	336.2	333.2
90°	0.0	249.9	290.0	286.9	274.5
92.5°	169.7	296.1	308.5	311.6	308.5
95°	317.7	345.5	314.6	311.6	305.4
97.5°	428.8	394.8	320.8	302.3	296.1
100°	524.4	447.3	320.8	296.1	286.9
102.5°	610.8	490.5	327.0	286.9	274.5
105°	669.4	530.6	327.0	280.7	265.3
107.5°	715.7	558.3	327.0	274.5	259.1
110°	743.4	570.7	327.0	268.4	243.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	752.7	570.7	323.9	256.0	237.5
115°	737.3	558.3	320.8	246.8	228.3
117.5°	712.6	542.9	320.8	240.6	219.0
120°	675.6	521.3	317.7	237.5	212.8
122.5°	632.4	493.6	311.6	234.4	209.8
125°	586.1	465.8	302.3	234.4	206.7
127.5°	539.8	434.9	290.0	237.5	209.8
130°	496.6	404.1	277.6	237.5	212.8
132.5°	453.5	373.3	265.3	234.4	212.8
135°	407.2	342.4	259.1	225.2	212.8
137.5°	364.0	314.6	252.9	219.0	203.6
140°	327.0	296.1	246.8	215.9	200.5
142.5°	299.2	280.7	243.7	212.8	197.4
145°	277.6	265.3	240.6	215.9	197.4
147.5°	262.2	256.0	237.5	215.9	197.4
150°	252.9	249.9	234.4	215.9	200.5
152.5°	246.8	243.7	231.4	219.0	203.6
155°	240.6	237.5	228.3	219.0	203.6
157.5°	237.5	234.4	228.3	219.0	206.7
160°	234.4	231.4	228.3	219.0	209.8
162.5°	231.4	231.4	225.2	222.1	209.8
165°	231.4	228.3	225.2	222.1	209.8
167.5°	228.3	228.3	225.2	222.1	212.8
170°	228.3	228.3	225.2	222.1	212.8
172.5°	228.3	228.3	225.2	222.1	212.8
175°	228.3	228.3	225.2	225.2	215.9
177.5°	228.3	228.3	225.2	225.2	215.9
180°	225.2	225.2	225.2	225.2	225.2



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	12.50	13.55	13.36	14.44	15.57	13.16	14.20	14.01	15.09	16.22
	3H	14.60	15.55	15.47	16.45	17.60	15.93	16.88	16.80	17.78	18.93
	4H	15.39	16.29	16.27	17.20	18.36	17.39	18.29	18.27	19.20	20.36
	6H	15.96	16.80	16.86	17.72	18.89	19.01	19.85	19.90	20.76	21.94
	8H	16.15	16.96	17.05	17.89	19.06	19.88	20.68	20.78	21.61	22.79
	12H	16.27	17.04	17.18	17.97	19.17	20.83	21.60	21.74	22.52	23.73
4H	2H	13.34	14.24	14.22	15.15	16.31	13.82	14.73	14.71	15.63	16.80
	3H	15.68	16.46	16.58	17.39	18.57	16.83	17.60	17.73	18.54	19.72
	4H	16.64	17.36	17.55	18.29	19.49	18.46	19.17	19.36	20.10	21.30
	6H	17.39	18.03	18.32	18.98	20.18	20.27	20.90	21.19	21.85	23.05
	8H	17.67	18.27	18.60	19.22	20.43	21.24	21.84	22.17	22.79	24.00
	12H	17.87	18.41	18.81	19.38	20.60	22.31	22.85	23.25	23.82	25.04
8H	4H	17.36	17.96	18.29	18.91	20.12	18.86	19.45	19.78	20.40	21.62
	6H	18.39	18.90	19.34	19.89	21.10	20.90	21.41	21.85	22.40	23.61
	8H	18.85	19.30	19.81	20.28	21.51	22.05	22.50	23.00	23.48	24.71
	12H	19.22	19.63	20.19	20.60	21.88	23.31	23.72	24.28	24.69	25.97
12H	4H	17.57	18.11	18.52	19.08	20.30	18.90	19.44	19.84	20.41	21.63
	6H	18.76	19.22	19.72	20.20	21.43	21.03	21.48	21.98	22.46	23.69
	8H	19.35	19.76	20.31	20.73	22.01	22.25	22.66	23.22	23.63	24.91