

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: P624652

Luminaire Tested: S930DIP-W130-X2-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624652
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35531-R2)
Test Lab: INNOVATION CENTER
Issue Date: 11/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S930DIP-W130-X2-USTD-W
Description: NEO-RAY COVERA DIRECT/INDIRECT 2-FOOT LED WaveStream LUMINAIRE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

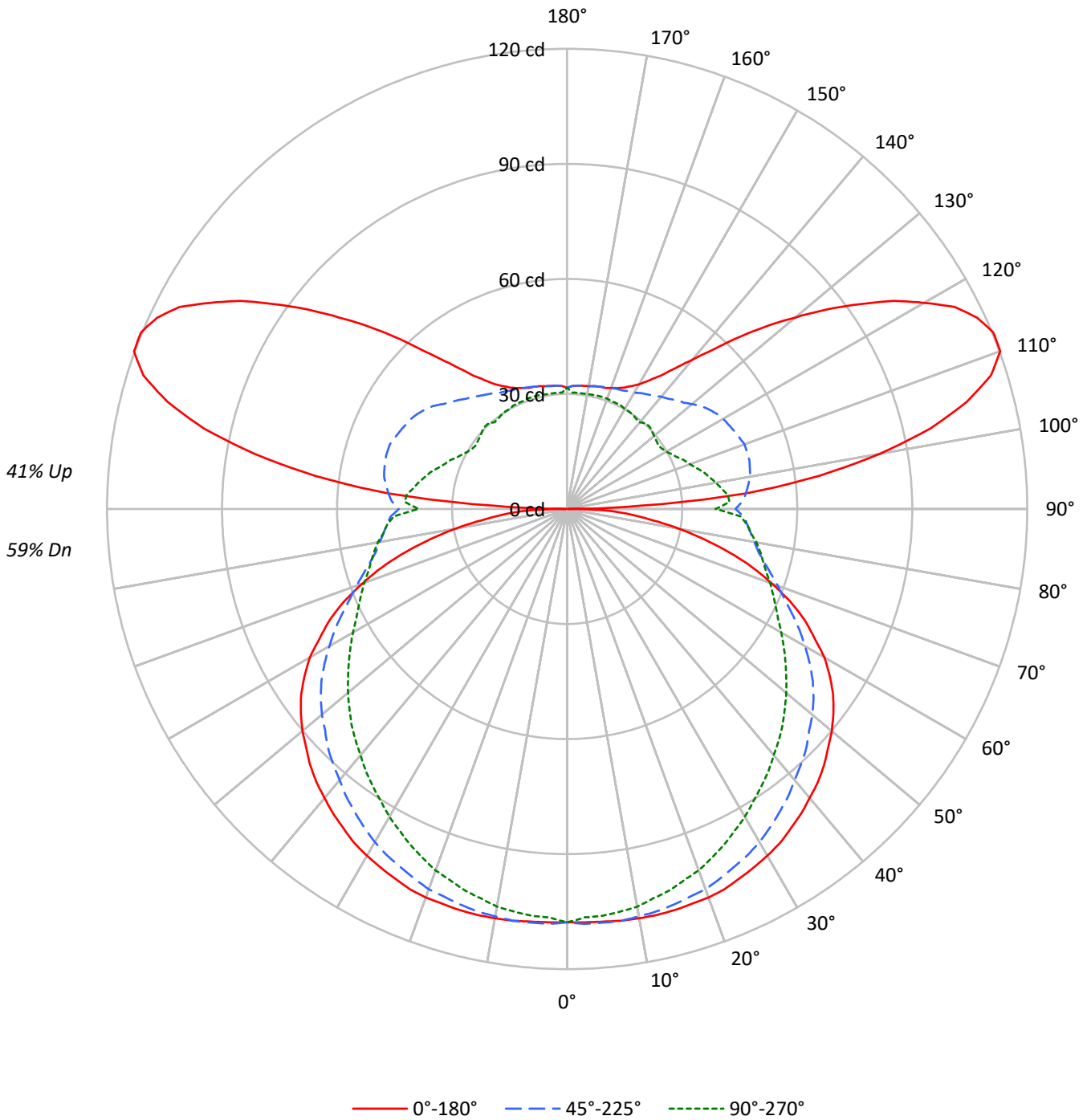
Lumens per Lamp: N/A
Luminaire Lumens: 757.7 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.28 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1.92' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 7.7
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



TEST NUMBER: P624652
CATALOG NUMBER: S930DIP-W130-X2-USTD-W

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	50	30	10	0														
RCR																																						
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59																				
1	97	92	87	82	90	85	81	77	74	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	26	23	20																				
6	61	47	38	32	56	44	36	30	38	32	27	33	27	23	28	23	20	17																				
7	56	43	34	28	52	40	32	26	35	28	23	30	24	20	25	21	18	15																				
8	52	38	30	24	48	36	28	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	24	19	42	30	23	18	26	20	16	23	18	15	20	16	13	11																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	908	908	908
5°	906	897	881
10°	913	886	863
15°	923	876	842
20°	937	870	824
25°	950	862	805
30°	967	858	788
35°	986	850	773
40°	1008	846	762
45°	1038	849	758
50°	1070	852	753
55°	1107	857	752
60°	1135	854	758
65°	1147	854	779
70°	1129	869	822
75°	1079	915	891
80°	962	1023	1005
85°	814	1225	1180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 1943 cd/sqm



TEST NUMBER: P624652

CATALOG NUMBER: S930DIP-W130-X2-USTD-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.3	1.4
10°-20°	30.1	4.0
20°-30°	47.3	6.2
30°-40°	60.2	7.9
40°-50°	67.8	8.9
50°-60°	69.4	9.2
60°-70°	64.2	8.5
70°-80°	53.9	7.1
80°-90°	44.5	5.9
90°-100°	51.3	6.8
100°-110°	64.5	8.5
110°-120°	61.3	8.1
120°-130°	48.0	6.3
130°-140°	33.9	4.5
140°-150°	23.1	3.0
150°-160°	15.6	2.1
160°-170°	9.2	1.2
170°-180°	3.1	0.4
0°-30°	87.7	11.6
0°-40°	147.9	19.5
0°-60°	285.0	37.6
0°-90°	447.6	59.1
90°-120°	177.1	23.4
90°-150°	282.1	37.2
90°-180°	310.0	40.9
0°-180°	757.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	108	108	108	108	108	
5°	108	108	108	108	106	10
15°	108	108	107	105	103	31
25°	106	105	103	100	97	49
35°	102	100	96	92	88	64
45°	95	92	88	84	80	73
55°	85	82	78	74	70	76
65°	68	67	65	63	60	67
75°	44	47	53	55	53	46
85°	17	36	47	48	47	16
90°	0	41	44	41	39	4
95°	47	57	47	43	42	45
105°	108	85	49	40	37	112
115°	118	90	48	36	32	116
125°	93	74	45	34	29	84
135°	63	53	40	34	30	50
145°	42	40	36	33	30	27
155°	35	35	34	33	30	16
165°	33	33	33	32	31	9
175°	32	32	32	32	30	3
180°	32	32	32	32	32	



TEST NUMBER: P624652

CATALOG NUMBER: S930DIP-W130-X2-USTD-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	107.8	107.8	107.8	107.8	107.8
2.5°	107.9	108.0	108.3	108.3	106.6
5°	108.0	108.1	108.3	108.1	106.5
7.5°	108.3	108.1	108.3	107.8	105.9
10°	108.4	108.3	107.9	107.3	105.3
12.5°	108.4	108.1	107.5	106.3	104.0
15°	108.3	107.9	106.9	105.4	103.0
17.5°	108.0	107.6	106.1	104.1	101.5
20°	107.8	107.1	105.5	103.1	100.3
22.5°	107.3	106.3	104.3	101.7	98.5
25°	106.3	105.4	103.0	99.9	96.7
27.5°	105.4	104.3	101.8	98.2	94.6
30°	104.4	103.0	100.3	96.3	92.7
32.5°	103.3	101.7	98.5	94.4	90.4
35°	101.7	99.9	96.5	92.4	88.3
37.5°	100.2	98.3	94.6	90.3	86.2
40°	98.4	96.3	92.3	88.0	83.8
42.5°	96.7	94.3	90.3	86.1	81.7
45°	94.7	91.9	88.2	83.7	79.5
47.5°	92.3	89.6	85.6	81.3	77.0
50°	90.1	87.3	83.5	78.9	74.6
52.5°	87.5	84.6	81.0	76.2	72.0
55°	84.7	81.5	78.2	73.7	69.5
57.5°	81.2	78.5	75.0	70.9	67.0
60°	77.5	74.9	71.6	68.1	64.5
62.5°	72.6	71.1	68.3	65.5	62.0
65°	68.3	67.3	64.7	63.0	60.0
67.5°	62.9	63.2	61.3	60.7	58.1
70°	56.8	58.3	58.4	58.6	56.3
72.5°	50.7	52.8	55.6	56.3	54.4
75°	43.9	47.1	53.1	54.7	52.9
77.5°	36.6	41.7	51.0	53.2	51.6
80°	29.6	38.0	49.6	51.6	50.1
82.5°	22.4	36.1	48.3	49.7	48.3
85°	16.8	36.3	47.2	48.1	47.1
87.5°	10.8	37.9	46.1	46.3	45.3
90°	0.2	40.6	43.9	40.7	38.7
92.5°	19.2	48.3	45.8	43.6	42.4
95°	47.0	56.7	46.8	43.2	42.0
97.5°	66.3	65.3	47.6	42.4	40.6
100°	82.8	72.8	48.5	41.6	39.4
102.5°	97.0	79.6	48.8	40.6	38.1
105°	107.9	85.2	49.2	39.6	36.9
107.5°	115.9	89.3	49.2	38.6	35.4
110°	120.2	91.9	49.2	37.6	34.1



TEST NUMBER: P624652

CATALOG NUMBER: S930DIP-W130-X2-USTD-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	120.3	91.9	48.6	36.4	33.1
115°	118.0	90.1	48.1	35.6	31.8
117.5°	114.0	87.1	47.5	34.5	30.8
120°	107.5	83.3	47.0	33.9	29.9
122.5°	101.0	78.7	46.2	33.6	29.3
125°	93.1	73.9	45.2	33.5	29.0
127.5°	85.5	68.8	44.1	33.6	29.3
130°	77.7	63.7	42.5	34.0	29.6
132.5°	70.5	58.1	41.1	34.1	30.0
135°	63.4	53.4	40.2	33.9	30.4
137.5°	56.3	49.2	39.0	33.1	30.3
140°	50.8	45.7	38.2	32.9	29.5
142.5°	46.2	42.7	37.2	33.0	29.6
145°	42.4	40.5	36.5	33.0	29.9
147.5°	39.7	38.6	35.8	33.0	30.1
150°	37.5	37.0	35.0	32.9	30.1
152.5°	36.1	35.9	34.6	32.9	30.4
155°	34.9	34.9	34.1	32.8	30.4
157.5°	34.1	34.1	33.9	32.6	30.4
160°	33.6	33.8	33.5	32.6	30.6
162.5°	33.1	33.3	33.3	32.5	30.6
165°	33.0	33.0	33.0	32.4	30.6
167.5°	32.8	32.8	32.8	32.3	30.5
170°	32.5	32.5	32.5	32.1	30.4
172.5°	32.4	32.3	32.3	32.0	30.4
175°	32.3	32.3	32.3	32.0	30.4
177.5°	32.1	32.1	32.1	31.9	30.4
180°	31.6	31.6	31.6	31.6	31.6



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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	8.82	9.86	9.68	10.75	11.88	8.45	9.49	9.31	10.39	11.51
	3H	11.00	11.95	11.87	12.85	14.00	11.11	12.06	11.98	12.96	14.11
	4H	11.83	12.73	12.71	13.64	14.80	12.48	13.38	13.36	14.29	15.45
	6H	12.45	13.29	13.34	14.20	15.38	13.96	14.80	14.86	15.71	16.89
	8H	12.66	13.46	13.56	14.40	15.57	14.73	15.54	15.63	16.47	17.64
	12H	12.81	13.58	13.72	14.51	15.71	15.55	16.32	16.46	17.25	18.45
4H	2H	9.47	10.38	10.36	11.29	12.45	9.20	10.10	10.08	11.01	12.17
	3H	11.91	12.68	12.81	13.62	14.80	12.07	12.85	12.97	13.78	14.96
	4H	12.91	13.62	13.82	14.56	15.76	13.60	14.32	14.51	15.25	16.45
	6H	13.71	14.34	14.63	15.29	16.49	15.27	15.90	16.19	16.85	18.05
	8H	14.02	14.61	14.94	15.56	16.78	16.14	16.73	17.06	17.68	18.90
	12H	14.25	14.80	15.20	15.76	16.99	17.06	17.61	18.01	18.57	19.80
8H	4H	13.47	14.07	14.40	15.02	16.23	14.06	14.65	14.99	15.61	16.82
	6H	14.53	15.03	15.48	16.02	17.24	15.95	16.46	16.90	17.45	18.66
	8H	15.02	15.47	15.97	16.45	17.68	16.99	17.44	17.95	18.42	19.65
	12H	15.44	15.84	16.40	16.82	18.09	18.11	18.51	19.07	19.49	20.77
12H	4H	13.62	14.16	14.56	15.13	16.35	14.12	14.66	15.06	15.63	16.85
	6H	14.82	15.27	15.77	16.25	17.48	16.10	16.55	17.06	17.53	18.76
	8H	15.42	15.82	16.38	16.80	18.07	17.22	17.63	18.19	18.60	19.88