

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: P624684

Luminaire Tested: S930DIP-W330-X2-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624684
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-W330-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

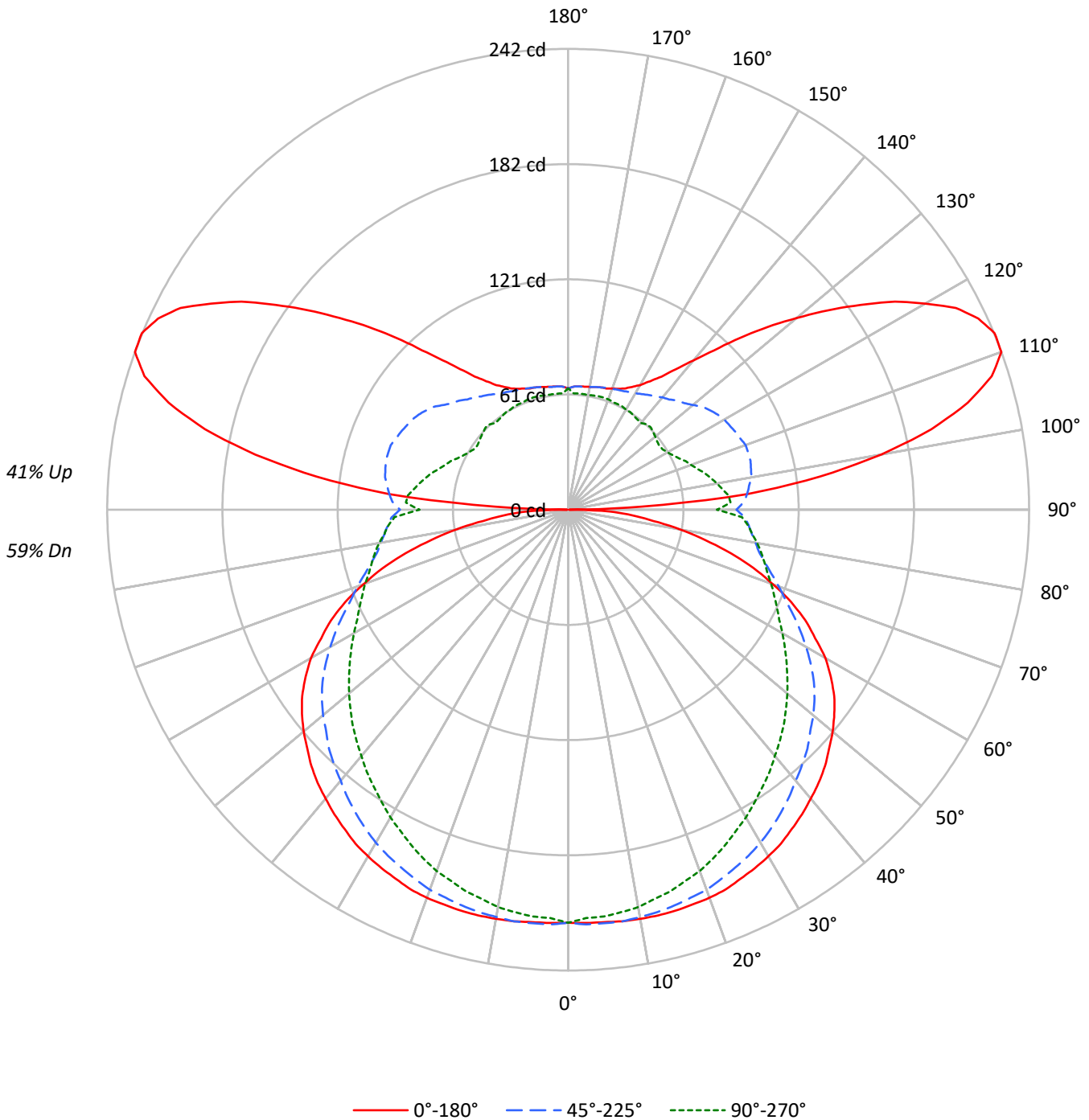
Lumens per Lamp: N/A
Luminaire Lumens: 1525.4 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.28 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1.92' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 15.7
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: P624684
CATALOG NUMBER: S930DIP-W330-X2-USTD-W

Luminous Intensity Polar Plot





TEST NUMBER: P624684

CATALOG NUMBER: S930DIP-W330-X2-USTD-W

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	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°	1827	1827	1827
5°	1824	1806	1774
10°	1838	1783	1736
15°	1858	1764	1695
20°	1885	1752	1659
25°	1911	1735	1620
30°	1947	1726	1586
35°	1984	1713	1556
40°	2030	1703	1534
45°	2089	1709	1525
50°	2153	1715	1517
55°	2227	1726	1514
60°	2284	1720	1527
65°	2308	1718	1569
70°	2274	1751	1656
75°	2170	1840	1795
80°	1940	2059	2022
85°	1643	2469	2375

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 3915 cd/sqm



TEST NUMBER: P624684

CATALOG NUMBER: S930DIP-W330-X2-USTD-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.7	1.4
10°-20°	60.6	4.0
20°-30°	95.3	6.2
30°-40°	121.1	7.9
40°-50°	136.4	8.9
50°-60°	139.7	9.2
60°-70°	129.2	8.5
70°-80°	108.5	7.1
80°-90°	89.7	5.9
90°-100°	103.3	6.8
100°-110°	129.8	8.5
110°-120°	123.5	8.1
120°-130°	96.6	6.3
130°-140°	68.2	4.5
140°-150°	46.5	3.1
150°-160°	31.5	2.1
160°-170°	18.6	1.2
170°-180°	6.2	0.4
0°-30°	176.6	11.6
0°-40°	297.7	19.5
0°-60°	573.8	37.6
0°-90°	901.2	59.1
90°-120°	356.6	23.4
90°-150°	568.0	37.2
90°-180°	624.0	40.9
0°-180°	1525.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	217	217	217	217	217	
5°	217	218	218	218	214	21
15°	218	217	215	212	207	62
25°	214	212	207	201	195	99
35°	205	201	194	186	178	128
45°	191	185	178	168	160	147
55°	170	164	158	148	140	152
65°	137	135	130	127	121	135
75°	88	95	107	110	107	93
85°	34	73	95	97	95	33
90°	0	82	88	82	78	8
95°	95	114	94	87	84	90
105°	217	172	99	80	74	225
115°	238	181	97	72	64	233
125°	187	149	91	68	58	169
135°	128	108	81	68	61	100
145°	85	82	74	66	60	55
155°	70	70	69	66	61	33
165°	66	66	66	65	62	19
175°	65	65	65	64	61	6
180°	64	64	64	64	64	



TEST NUMBER: P624684

CATALOG NUMBER: S930DIP-W330-X2-USTD-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	216.9	216.9	216.9	216.9	216.9
2.5°	217.2	217.4	218.0	218.0	214.7
5°	217.4	217.7	218.0	217.7	214.4
7.5°	218.0	217.7	218.0	216.9	213.2
10°	218.2	218.0	217.2	215.9	211.9
12.5°	218.2	217.7	216.4	213.9	209.4
15°	218.0	217.2	215.2	212.2	207.4
17.5°	217.4	216.7	213.7	209.7	204.4
20°	216.9	215.7	212.4	207.7	201.9
22.5°	215.9	213.9	209.9	204.7	198.4
25°	213.9	212.2	207.4	201.1	194.6
27.5°	212.2	209.9	204.9	197.6	190.4
30°	210.2	207.4	201.9	193.9	186.6
32.5°	207.9	204.7	198.4	190.1	182.1
35°	204.7	201.1	194.4	186.1	177.8
37.5°	201.6	197.9	190.4	181.8	173.6
40°	198.1	193.9	185.8	177.1	168.8
42.5°	194.6	189.9	181.8	173.3	164.5
45°	190.6	185.1	177.6	168.5	160.0
47.5°	185.8	180.3	172.3	163.8	155.0
50°	181.3	175.8	168.0	158.8	150.2
52.5°	176.1	170.3	163.0	153.5	145.0
55°	170.5	164.0	157.5	148.5	139.9
57.5°	163.5	158.0	151.0	142.7	134.9
60°	156.0	150.7	144.2	137.2	129.9
62.5°	146.2	143.2	137.4	131.9	124.9
65°	137.4	135.4	130.2	126.9	120.9
67.5°	126.7	127.2	123.4	122.1	116.9
70°	114.4	117.4	117.6	117.9	113.4
72.5°	102.1	106.3	111.9	113.4	109.6
75°	88.3	94.8	106.8	110.1	106.6
77.5°	73.7	84.0	102.6	107.1	103.8
80°	59.7	76.5	99.8	103.8	100.8
82.5°	45.1	72.7	97.3	100.1	97.3
85°	33.9	73.0	95.1	96.8	94.8
87.5°	21.8	76.2	92.8	93.3	91.3
90°	0.5	81.8	88.3	82.0	78.0
92.5°	38.6	97.3	92.3	87.8	85.3
95°	94.6	114.1	94.3	87.0	84.5
97.5°	133.4	131.4	95.8	85.3	81.8
100°	166.8	146.5	97.6	83.8	79.3
102.5°	195.4	160.3	98.3	81.8	76.7
105°	217.2	171.6	99.1	79.8	74.2
107.5°	233.2	179.8	99.1	77.7	71.2
110°	242.0	185.1	99.1	75.7	68.7



TEST NUMBER: P624684

CATALOG NUMBER: S930DIP-W330-X2-USTD-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	242.3	185.1	97.8	73.2	66.7
115°	237.5	181.3	96.8	71.7	64.0
117.5°	229.5	175.3	95.6	69.5	61.9
120°	216.4	167.8	94.6	68.2	60.2
122.5°	203.4	158.5	93.0	67.7	58.9
125°	187.4	148.7	91.0	67.5	58.4
127.5°	172.1	138.4	88.8	67.7	58.9
130°	156.5	128.2	85.5	68.5	59.7
132.5°	142.0	116.9	82.8	68.7	60.4
135°	127.7	107.6	81.0	68.2	61.2
137.5°	113.4	99.1	78.5	66.7	60.9
140°	102.3	92.0	77.0	66.2	59.4
142.5°	93.0	86.0	75.0	66.5	59.7
145°	85.3	81.5	73.5	66.5	60.2
147.5°	80.0	77.7	72.0	66.5	60.7
150°	75.5	74.5	70.5	66.2	60.7
152.5°	72.7	72.2	69.7	66.2	61.2
155°	70.2	70.2	68.7	66.0	61.2
157.5°	68.7	68.7	68.2	65.7	61.2
160°	67.7	68.0	67.5	65.7	61.7
162.5°	66.7	67.0	67.0	65.5	61.7
165°	66.5	66.5	66.5	65.2	61.7
167.5°	66.0	66.0	66.0	65.0	61.4
170°	65.5	65.5	65.5	64.7	61.2
172.5°	65.2	65.0	65.0	64.5	61.2
175°	65.0	65.0	65.0	64.5	61.2
177.5°	64.7	64.7	64.7	64.2	61.2
180°	63.7	63.7	63.7	63.7	63.7



TEST NUMBER: P624684

CATALOG NUMBER: S930DIP-W330-X2-USTD-W

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	11.25	12.29	12.10	13.18	14.31	10.89	11.93	11.74	12.82	13.95
	3H	13.43	14.38	14.30	15.28	16.43	13.54	14.49	14.41	15.39	16.54
	4H	14.26	15.16	15.14	16.07	17.23	14.91	15.82	15.79	16.72	17.88
	6H	14.88	15.72	15.77	16.63	17.81	16.39	17.23	17.29	18.15	19.32
	8H	15.09	15.89	15.99	16.83	18.00	17.16	17.97	18.06	18.90	20.07
	12H	15.24	16.01	16.15	16.94	18.14	17.98	18.75	18.89	19.68	20.88
4H	2H	11.90	12.81	12.79	13.71	14.88	11.63	12.53	12.52	13.44	14.60
	3H	14.34	15.11	15.24	16.05	17.23	14.51	15.28	15.40	16.22	17.39
	4H	15.34	16.05	16.25	16.99	18.19	16.04	16.75	16.95	17.68	18.89
	6H	16.14	16.77	17.06	17.72	18.92	17.70	18.33	18.62	19.28	20.48
	8H	16.45	17.04	17.37	17.99	19.21	18.57	19.16	19.49	20.11	21.33
	12H	16.68	17.23	17.63	18.19	19.42	19.49	20.04	20.44	21.00	22.23
8H	4H	15.90	16.49	16.83	17.44	18.66	16.49	17.09	17.42	18.04	19.25
	6H	16.96	17.46	17.91	18.45	19.67	18.38	18.89	19.33	19.88	21.09
	8H	17.45	17.90	18.40	18.88	20.11	19.42	19.87	20.38	20.85	22.08
	12H	17.87	18.27	18.83	19.25	20.52	20.54	20.94	21.50	21.92	23.19
12H	4H	16.05	16.59	16.99	17.55	18.78	16.55	17.09	17.49	18.06	19.28
	6H	17.24	17.70	18.20	18.68	19.91	18.53	18.98	19.49	19.96	21.19
	8H	17.85	18.25	18.81	19.23	20.50	19.65	20.06	20.62	21.03	22.31