

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: P624700

Luminaire Tested: S930DIP-W430-X2-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624700
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-W430-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

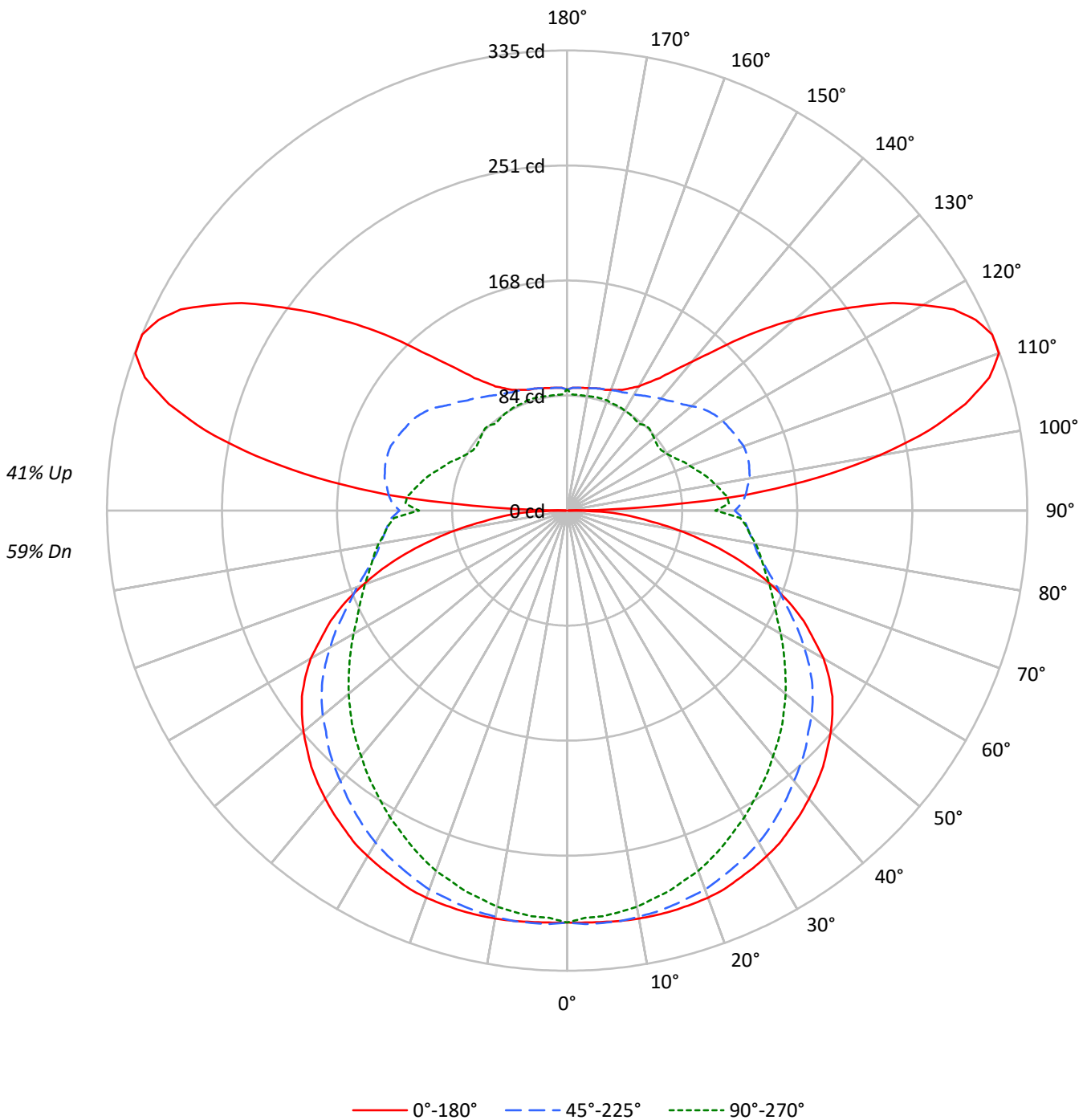
Lumens per Lamp: N/A
Luminaire Lumens: 2108.5 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.28 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1.92' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 21.2
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										
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°	2526	2526	2526
5°	2523	2496	2453
10°	2541	2464	2400
15°	2568	2439	2343
20°	2606	2422	2293
25°	2641	2398	2239
30°	2691	2387	2192
35°	2742	2368	2151
40°	2807	2354	2121
45°	2888	2361	2108
50°	2976	2371	2097
55°	3079	2386	2093
60°	3157	2377	2112
65°	3192	2373	2168
70°	3143	2420	2288
75°	2998	2545	2480
80°	2680	2847	2797
85°	2269	3411	3282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 5408 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.6	1.4
10°-20°	83.8	4.0
20°-30°	131.7	6.2
30°-40°	167.4	7.9
40°-50°	188.6	8.9
50°-60°	193.1	9.2
60°-70°	178.6	8.5
70°-80°	150.0	7.1
80°-90°	123.9	5.9
90°-100°	142.8	6.8
100°-110°	179.4	8.5
110°-120°	170.7	8.1
120°-130°	133.6	6.3
130°-140°	94.3	4.5
140°-150°	64.3	3.1
150°-160°	43.5	2.1
160°-170°	25.7	1.2
170°-180°	8.5	0.4
0°-30°	244.1	11.6
0°-40°	411.5	19.5
0°-60°	793.2	37.6
0°-90°	1245.7	59.1
90°-120°	492.9	23.4
90°-150°	785.1	37.2
90°-180°	863.0	40.9
0°-180°	2108.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	301	301	301	301	296	29
15°	301	300	298	293	287	85
25°	296	293	287	278	269	137
35°	283	278	269	257	246	177
45°	264	256	245	233	221	203
55°	236	227	218	205	193	210
65°	190	187	180	175	167	187
75°	122	131	148	152	147	128
85°	47	101	131	134	131	45
90°	1	113	122	113	108	12
95°	131	158	130	120	117	124
105°	300	237	137	110	103	310
115°	328	251	134	99	88	322
125°	259	206	126	93	81	233
135°	176	149	112	94	85	138
145°	118	113	102	92	83	76
155°	97	97	95	91	85	45
165°	92	92	92	90	85	26
175°	90	90	90	89	85	9
180°	88	88	88	88	88	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	299.9	299.9	299.9	299.9	299.9
2.5°	300.2	300.6	301.3	301.3	296.8
5°	300.6	300.9	301.3	300.9	296.4
7.5°	301.3	300.9	301.3	299.9	294.7
10°	301.6	301.3	300.2	298.5	292.9
12.5°	301.6	300.9	299.2	295.7	289.5
15°	301.3	300.2	297.5	293.3	286.7
17.5°	300.6	299.5	295.4	289.8	282.5
20°	299.9	298.1	293.6	287.1	279.1
22.5°	298.5	295.7	290.2	282.9	274.2
25°	295.7	293.3	286.7	278.0	269.0
27.5°	293.3	290.2	283.2	273.2	263.1
30°	290.5	286.7	279.1	268.0	257.9
32.5°	287.4	282.9	274.2	262.8	251.7
35°	282.9	278.0	268.7	257.2	245.8
37.5°	278.7	273.5	263.1	251.3	239.9
40°	273.9	268.0	256.9	244.8	233.3
42.5°	269.0	262.4	251.3	239.6	227.4
45°	263.5	255.8	245.4	233.0	221.2
47.5°	256.9	249.3	238.2	226.4	214.2
50°	250.6	243.0	232.3	219.4	207.7
52.5°	243.4	235.4	225.3	212.2	200.4
55°	235.7	226.7	217.7	205.2	193.4
57.5°	226.0	218.4	208.7	197.3	186.5
60°	215.6	208.4	199.3	189.6	179.6
62.5°	202.1	198.0	190.0	182.4	172.6
65°	190.0	187.2	179.9	175.4	167.1
67.5°	175.1	175.8	170.6	168.8	161.6
70°	158.1	162.2	162.6	162.9	156.7
72.5°	141.1	147.0	154.6	156.7	151.5
75°	122.0	131.0	147.7	152.2	147.3
77.5°	101.9	116.1	141.8	148.0	143.5
80°	82.5	105.7	138.0	143.5	139.4
82.5°	62.4	100.5	134.5	138.3	134.5
85°	46.8	100.9	131.4	133.8	131.0
87.5°	30.2	105.4	128.3	129.0	126.2
90°	0.7	113.0	122.0	113.4	107.8
92.5°	53.4	134.5	127.6	121.3	117.9
95°	130.7	157.7	130.4	120.3	116.8
97.5°	184.4	181.7	132.4	117.9	113.0
100°	230.5	202.5	134.9	115.8	109.6
102.5°	270.1	221.5	135.9	113.0	106.1
105°	300.2	237.1	136.9	110.2	102.6
107.5°	322.4	248.6	136.9	107.5	98.5
110°	334.5	255.8	136.9	104.7	95.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	334.9	255.8	135.2	101.2	92.2
115°	328.3	250.6	133.8	99.2	88.4
117.5°	317.2	242.3	132.1	96.0	85.6
120°	299.2	231.9	130.7	94.3	83.2
122.5°	281.2	219.1	128.6	93.6	81.5
125°	259.0	205.6	125.8	93.3	80.8
127.5°	237.8	191.4	122.7	93.6	81.5
130°	216.3	177.2	118.2	94.6	82.5
132.5°	196.2	161.6	114.4	95.0	83.5
135°	176.5	148.7	112.0	94.3	84.6
137.5°	156.7	136.9	108.5	92.2	84.2
140°	141.4	127.2	106.4	91.5	82.2
142.5°	128.6	118.9	103.7	91.9	82.5
145°	117.9	112.7	101.6	91.9	83.2
147.5°	110.6	107.5	99.5	91.9	83.9
150°	104.4	103.0	97.4	91.5	83.9
152.5°	100.5	99.8	96.4	91.5	84.6
155°	97.1	97.1	95.0	91.2	84.6
157.5°	95.0	95.0	94.3	90.8	84.6
160°	93.6	94.0	93.3	90.8	85.3
162.5°	92.2	92.6	92.6	90.5	85.3
165°	91.9	91.9	91.9	90.1	85.3
167.5°	91.2	91.2	91.2	89.8	84.9
170°	90.5	90.5	90.5	89.4	84.6
172.5°	90.1	89.8	89.8	89.1	84.6
175°	89.8	89.8	89.8	89.1	84.6
177.5°	89.4	89.4	89.4	88.8	84.6
180°	88.1	88.1	88.1	88.1	88.1



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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	12.37	13.41	13.23	14.31	15.44	12.01	13.05	12.87	13.94	15.07
	3H	14.55	15.50	15.42	16.40	17.56	14.66	15.61	15.53	16.51	17.67
	4H	15.38	16.28	16.26	17.19	18.35	16.03	16.94	16.92	17.85	19.01
	6H	16.00	16.84	16.89	17.75	18.93	17.52	18.36	18.41	19.27	20.45
	8H	16.21	17.02	17.12	17.95	19.13	18.29	19.09	19.19	20.02	21.20
	12H	16.36	17.13	17.27	18.06	19.26	19.11	19.88	20.02	20.80	22.01
4H	2H	13.03	13.93	13.91	14.84	16.00	12.75	13.66	13.64	14.56	15.73
	3H	15.46	16.24	16.36	17.17	18.35	15.63	16.40	16.53	17.34	18.52
	4H	16.46	17.18	17.37	18.11	19.31	17.16	17.88	18.07	18.81	20.01
	6H	17.26	17.89	18.18	18.85	20.05	18.82	19.45	19.74	20.41	21.61
	8H	17.57	18.17	18.50	19.12	20.33	19.69	20.29	20.62	21.24	22.45
	12H	17.81	18.35	18.75	19.32	20.54	20.62	21.16	21.56	22.13	23.35
8H	4H	17.03	17.62	17.95	18.57	19.79	17.62	18.21	18.54	19.16	20.38
	6H	18.08	18.59	19.03	19.58	20.79	19.51	20.01	20.46	21.00	22.22
	8H	18.57	19.02	19.53	20.00	21.23	20.54	21.00	21.50	21.97	23.21
	12H	18.99	19.39	19.96	20.37	21.65	21.66	22.07	22.63	23.04	24.32
12H	4H	17.17	17.71	18.12	18.68	19.90	17.67	18.21	18.62	19.18	20.40
	6H	18.37	18.82	19.33	19.80	21.03	19.66	20.11	20.61	21.09	22.32
	8H	18.97	19.38	19.94	20.35	21.63	20.78	21.18	21.74	22.16	23.43