

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: P624716

Luminaire Tested: S930DIP-W530-X2-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624716
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-W530-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

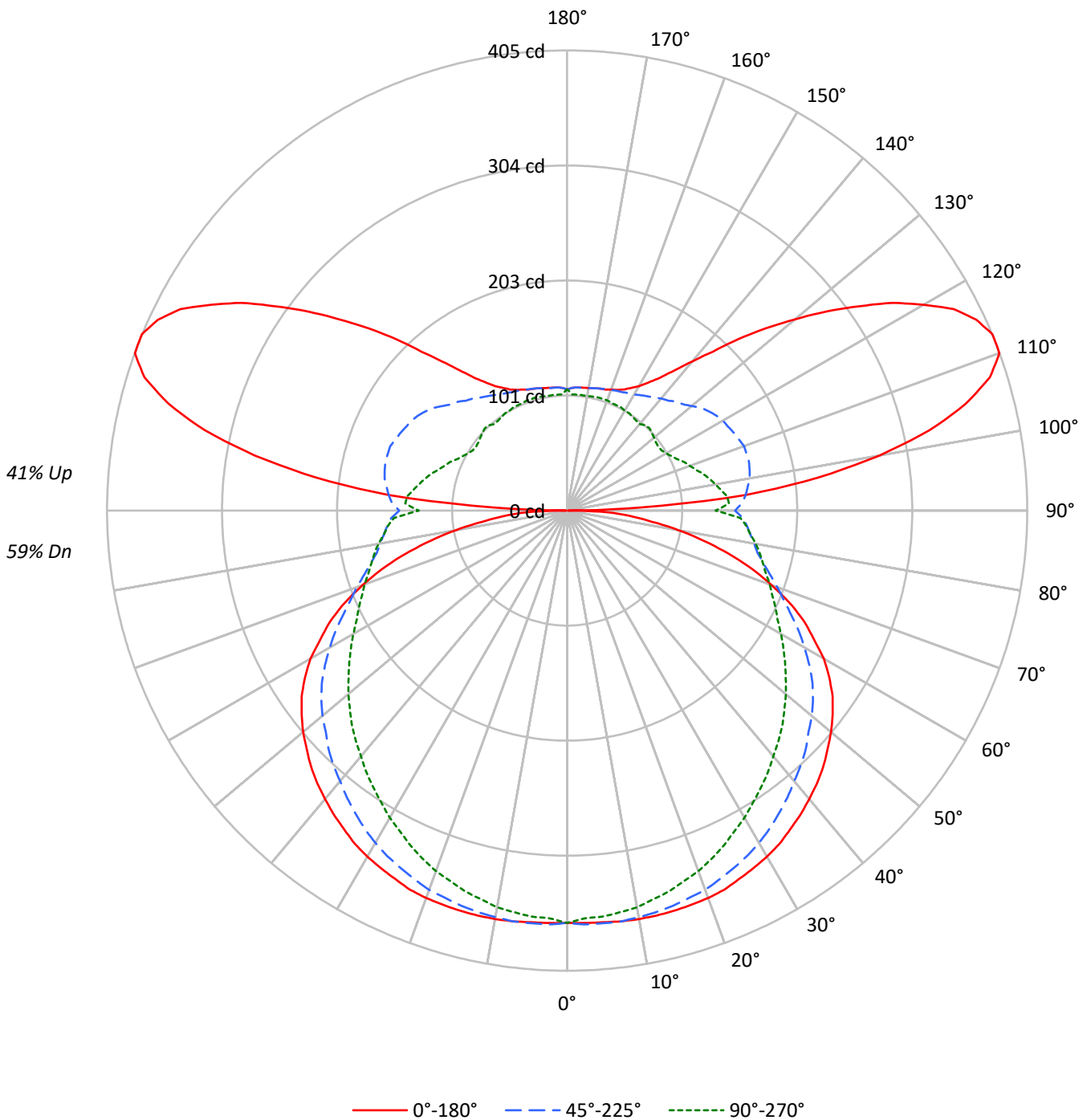
Lumens per Lamp: N/A
Luminaire Lumens: 2551.7 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.28 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1.92' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 27.6
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	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°	3057	3057	3057
5°	3052	3020	2968
10°	3075	2982	2904
15°	3107	2951	2836
20°	3153	2931	2775
25°	3197	2903	2710
30°	3257	2888	2653
35°	3318	2865	2603
40°	3396	2849	2566
45°	3494	2857	2551
50°	3602	2869	2537
55°	3727	2887	2534
60°	3820	2877	2555
65°	3862	2872	2624
70°	3803	2929	2768
75°	3629	3079	3002
80°	3242	3446	3385
85°	2744	4127	3974

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 6547 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	1.4
10°-20°	101.4	4.0
20°-30°	159.3	6.2
30°-40°	202.6	7.9
40°-50°	228.2	8.9
50°-60°	233.7	9.2
60°-70°	216.1	8.5
70°-80°	181.5	7.1
80°-90°	150.0	5.9
90°-100°	172.8	6.8
100°-110°	217.2	8.5
110°-120°	206.6	8.1
120°-130°	161.7	6.3
130°-140°	114.1	4.5
140°-150°	77.8	3.1
150°-160°	52.6	2.1
160°-170°	31.1	1.2
170°-180°	10.3	0.4
0°-30°	295.4	11.6
0°-40°	498.0	19.5
0°-60°	959.9	37.6
0°-90°	1507.5	59.1
90°-120°	596.5	23.4
90°-150°	950.2	37.2
90°-180°	1044.0	40.9
0°-180°	2551.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	363	363	363	363	363	
5°	364	364	365	364	359	35
15°	365	363	360	355	347	103
25°	358	355	347	336	326	165
35°	342	336	325	311	297	215
45°	319	310	297	282	268	246
55°	285	274	264	248	234	254
65°	230	226	218	212	202	226
75°	148	159	179	184	178	155
85°	57	122	159	162	159	54
90°	1	137	148	137	130	14
95°	158	191	158	146	141	150
105°	363	287	166	133	124	376
115°	397	303	162	120	107	390
125°	313	249	152	113	98	282
135°	214	180	136	114	102	167
145°	143	136	123	111	101	92
155°	118	118	115	110	102	55
165°	111	111	111	109	103	32
175°	109	109	109	108	102	10
180°	107	107	107	107	107	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	362.9	362.9	362.9	362.9	362.9
2.5°	363.3	363.7	364.6	364.6	359.1
5°	363.7	364.2	364.6	364.2	358.7
7.5°	364.6	364.2	364.6	362.9	356.6
10°	365.0	364.6	363.3	361.2	354.5
12.5°	365.0	364.2	362.1	357.9	350.3
15°	364.6	363.3	360.0	354.9	347.0
17.5°	363.7	362.5	357.4	350.7	341.9
20°	362.9	360.8	355.3	347.4	337.7
22.5°	361.2	357.9	351.1	342.3	331.8
25°	357.9	354.9	347.0	336.5	325.6
27.5°	354.9	351.1	342.8	330.6	318.4
30°	351.6	347.0	337.7	324.3	312.1
32.5°	347.8	342.3	331.8	318.0	304.6
35°	342.3	336.5	325.1	311.3	297.4
37.5°	337.3	331.0	318.4	304.2	290.3
40°	331.4	324.3	310.9	296.2	282.3
42.5°	325.6	317.6	304.2	289.9	275.2
45°	318.8	309.6	297.0	281.9	267.7
47.5°	310.9	301.6	288.2	274.0	259.3
50°	303.3	294.1	281.1	265.6	251.3
52.5°	294.5	284.9	272.7	256.8	242.5
55°	285.3	274.4	263.5	248.4	234.1
57.5°	273.5	264.3	252.6	238.7	225.7
60°	260.9	252.1	241.2	229.5	217.3
62.5°	244.6	239.6	229.9	220.7	208.9
65°	229.9	226.5	217.7	212.3	202.2
67.5°	211.9	212.7	206.4	204.3	195.5
70°	191.3	196.3	196.8	197.2	189.6
72.5°	170.7	177.9	187.1	189.6	183.3
75°	147.7	158.6	178.7	184.2	178.3
77.5°	123.3	140.5	171.6	179.1	173.7
80°	99.8	128.0	167.0	173.7	168.7
82.5°	75.5	121.7	162.8	167.4	162.8
85°	56.6	122.1	159.0	161.9	158.6
87.5°	36.5	127.5	155.2	156.1	152.7
90°	0.8	136.8	147.7	137.2	130.5
92.5°	64.6	162.8	154.4	146.8	142.6
95°	158.2	190.9	157.7	145.6	141.4
97.5°	223.2	219.8	160.3	142.6	136.8
100°	279.0	245.0	163.2	140.1	132.6
102.5°	326.8	268.1	164.5	136.8	128.4
105°	363.3	287.0	165.7	133.4	124.2
107.5°	390.2	300.8	165.7	130.1	119.1
110°	404.8	309.6	165.7	126.7	115.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	405.3	309.6	163.6	122.5	111.6
115°	397.3	303.3	161.9	120.0	107.0
117.5°	383.9	293.3	159.8	116.2	103.6
120°	362.1	280.7	158.2	114.1	100.7
122.5°	340.2	265.1	155.6	113.3	98.6
125°	313.4	248.8	152.3	112.9	97.8
127.5°	287.8	231.6	148.5	113.3	98.6
130°	261.8	214.4	143.1	114.5	99.8
132.5°	237.5	195.5	138.4	115.0	101.1
135°	213.5	180.0	135.5	114.1	102.4
137.5°	189.6	165.7	131.3	111.6	101.9
140°	171.2	154.0	128.8	110.8	99.4
142.5°	155.6	143.9	125.4	111.2	99.8
145°	142.6	136.3	122.9	111.2	100.7
147.5°	133.8	130.1	120.4	111.2	101.5
150°	126.3	124.6	117.9	110.8	101.5
152.5°	121.7	120.8	116.6	110.8	102.4
155°	117.5	117.5	115.0	110.3	102.4
157.5°	115.0	115.0	114.1	109.9	102.4
160°	113.3	113.7	112.9	109.9	103.2
162.5°	111.6	112.0	112.0	109.5	103.2
165°	111.2	111.2	111.2	109.1	103.2
167.5°	110.3	110.3	110.3	108.7	102.8
170°	109.5	109.5	109.5	108.2	102.4
172.5°	109.1	108.7	108.7	107.8	102.4
175°	108.7	108.7	108.7	107.8	102.4
177.5°	108.2	108.2	108.2	107.4	102.4
180°	106.6	106.6	106.6	106.6	106.6



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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	13.04	14.08	13.89	14.97	16.10	12.67	13.72	13.53	14.61	15.74
	3H	15.22	16.17	16.08	17.07	18.22	15.33	16.28	16.20	17.18	18.33
	4H	16.04	16.95	16.93	17.85	19.02	16.70	17.60	17.58	18.51	19.67
	6H	16.66	17.50	17.56	18.42	19.59	18.18	19.02	19.08	19.93	21.11
	8H	16.88	17.68	17.78	18.61	19.79	18.95	19.76	19.85	20.69	21.86
	12H	17.03	17.80	17.94	18.72	19.93	19.77	20.54	20.68	21.47	22.67
4H	2H	13.69	14.59	14.58	15.50	16.66	13.42	14.32	14.30	15.23	16.39
	3H	16.12	16.90	17.02	17.84	19.01	16.29	17.07	17.19	18.00	19.18
	4H	17.12	17.84	18.03	18.77	19.97	17.82	18.54	18.73	19.47	20.67
	6H	17.93	18.56	18.85	19.51	20.71	19.49	20.12	20.41	21.07	22.27
	8H	18.24	18.83	19.16	19.78	21.00	20.36	20.95	21.28	21.90	23.12
	12H	18.47	19.01	19.42	19.98	21.20	21.28	21.82	22.23	22.79	24.01
8H	4H	17.69	18.28	18.61	19.23	20.45	18.28	18.87	19.20	19.82	21.04
	6H	18.75	19.25	19.70	20.24	21.46	20.17	20.68	21.12	21.67	22.88
	8H	19.23	19.69	20.19	20.66	21.90	21.21	21.66	22.17	22.64	23.87
	12H	19.65	20.06	20.62	21.03	22.31	22.33	22.73	23.29	23.71	24.98
12H	4H	17.83	18.38	18.78	19.34	20.57	18.34	18.88	19.28	19.84	21.07
	6H	19.03	19.49	19.99	20.46	21.70	20.32	20.77	21.28	21.75	22.98
	8H	19.64	20.04	20.60	21.01	22.29	21.44	21.85	22.41	22.82	24.10