

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: P624712

Luminaire Tested: S930DIP-W527-X2-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624712
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-W527-X2-USTD-W
Description: NEO-RAY COVERA DIRECT/INDIRECT 2-FOOT LED WaveStream LUMINAIRE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

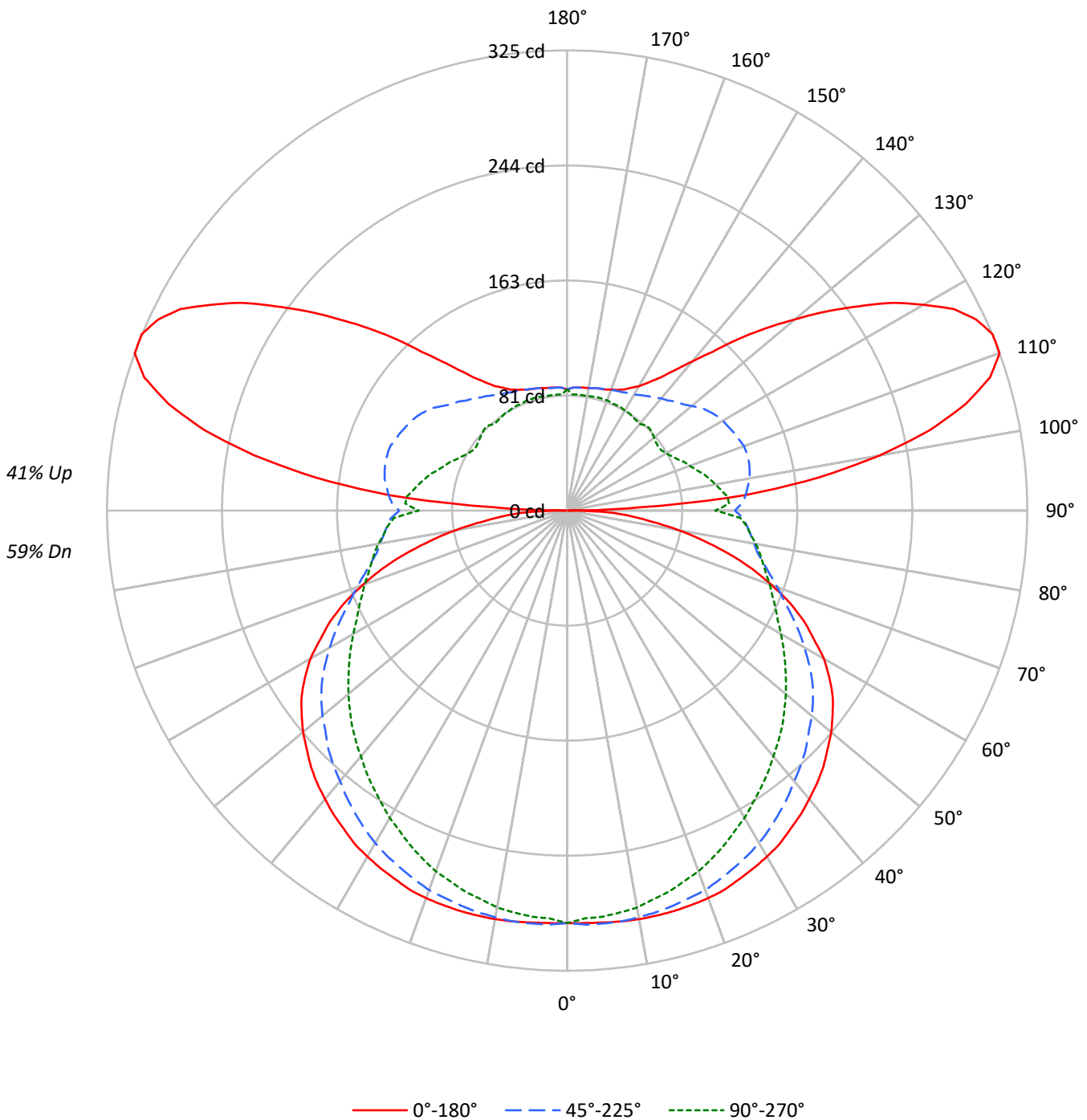
Lumens per Lamp: N/A
Luminaire Lumens: 2048.2 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.28 / 1.52
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1.92' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 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										
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°	2454	2454	2454
5°	2451	2425	2382
10°	2468	2394	2332
15°	2495	2368	2276
20°	2531	2353	2228
25°	2566	2330	2175
30°	2614	2318	2130
35°	2664	2300	2090
40°	2726	2287	2060
45°	2805	2294	2048
50°	2891	2303	2037
55°	2992	2318	2034
60°	3068	2309	2050
65°	3100	2306	2106
70°	3054	2350	2222
75°	2912	2472	2409
80°	2606	2765	2717
85°	2206	3312	3190

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 5255 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.8	1.4
10°-20°	81.4	4.0
20°-30°	127.9	6.2
30°-40°	162.6	7.9
40°-50°	183.2	8.9
50°-60°	187.6	9.2
60°-70°	173.5	8.5
70°-80°	145.7	7.1
80°-90°	120.4	5.9
90°-100°	138.7	6.8
100°-110°	174.3	8.5
110°-120°	165.8	8.1
120°-130°	129.8	6.3
130°-140°	91.6	4.5
140°-150°	62.5	3.1
150°-160°	42.2	2.1
160°-170°	25.0	1.2
170°-180°	8.3	0.4
0°-30°	237.1	11.6
0°-40°	399.8	19.5
0°-60°	770.5	37.6
0°-90°	1210.1	59.1
90°-120°	478.8	23.4
90°-150°	762.7	37.2
90°-180°	838.0	40.9
0°-180°	2048.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	291	291	291	291	291	
5°	292	292	293	292	288	28
15°	293	292	289	285	278	83
25°	287	285	278	270	261	133
35°	275	270	261	250	239	172
45°	256	248	238	226	215	198
55°	229	220	212	199	188	204
65°	184	182	175	170	162	181
75°	118	127	144	148	143	124
85°	46	98	128	130	127	44
90°	1	110	118	110	105	11
95°	127	153	127	117	114	121
105°	292	230	133	107	100	302
115°	319	244	130	96	86	313
125°	252	200	122	91	78	226
135°	171	144	109	92	82	134
145°	114	110	99	89	81	74
155°	94	94	92	89	82	44
165°	89	89	89	88	83	25
175°	87	87	87	86	82	8
180°	86	86	86	86	86	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	291.3	291.3	291.3	291.3	291.3
2.5°	291.6	292.0	292.7	292.7	288.3
5°	292.0	292.3	292.7	292.3	287.9
7.5°	292.7	292.3	292.7	291.3	286.3
10°	293.0	292.7	291.6	290.0	284.6
12.5°	293.0	292.3	290.6	287.3	281.2
15°	292.7	291.6	288.9	284.9	278.5
17.5°	292.0	291.0	286.9	281.5	274.5
20°	291.3	289.6	285.2	278.8	271.1
22.5°	290.0	287.3	281.9	274.8	266.4
25°	287.3	284.9	278.5	270.1	261.3
27.5°	284.9	281.9	275.1	265.4	255.6
30°	282.2	278.5	271.1	260.3	250.6
32.5°	279.2	274.8	266.4	255.3	244.5
35°	274.8	270.1	261.0	249.9	238.8
37.5°	270.8	265.7	255.6	244.2	233.0
40°	266.0	260.3	249.5	237.8	226.6
42.5°	261.3	254.9	244.2	232.7	220.9
45°	255.9	248.5	238.4	226.3	214.9
47.5°	249.5	242.1	231.4	219.9	208.1
50°	243.5	236.1	225.6	213.2	201.7
52.5°	236.4	228.7	218.9	206.1	194.7
55°	229.0	220.2	211.5	199.4	187.9
57.5°	219.6	212.2	202.7	191.6	181.2
60°	209.5	202.4	193.6	184.2	174.4
62.5°	196.3	192.3	184.5	177.1	167.7
65°	184.5	181.9	174.8	170.4	162.3
67.5°	170.1	170.7	165.7	164.0	156.9
70°	153.6	157.6	157.9	158.3	152.2
72.5°	137.1	142.8	150.2	152.2	147.2
75°	118.5	127.3	143.5	147.8	143.1
77.5°	99.0	112.8	137.7	143.8	139.4
80°	80.2	102.7	134.0	139.4	135.4
82.5°	60.6	97.7	130.7	134.4	130.7
85°	45.5	98.0	127.6	130.0	127.3
87.5°	29.3	102.4	124.6	125.3	122.6
90°	0.7	109.8	118.5	110.1	104.7
92.5°	51.9	130.7	123.9	117.9	114.5
95°	127.0	153.2	126.6	116.9	113.5
97.5°	179.2	176.5	128.6	114.5	109.8
100°	224.0	196.7	131.0	112.5	106.4
102.5°	262.3	215.2	132.0	109.8	103.1
105°	291.6	230.4	133.0	107.1	99.7
107.5°	313.2	241.5	133.0	104.4	95.6
110°	325.0	248.5	133.0	101.7	92.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	325.3	248.5	131.3	98.3	89.6
115°	318.9	243.5	130.0	96.3	85.9
117.5°	308.1	235.4	128.3	93.3	83.2
120°	290.6	225.3	127.0	91.6	80.8
122.5°	273.1	212.8	124.9	90.9	79.1
125°	251.6	199.7	122.2	90.6	78.5
127.5°	231.0	185.9	119.2	90.9	79.1
130°	210.1	172.1	114.8	91.9	80.2
132.5°	190.6	156.9	111.1	92.3	81.2
135°	171.4	144.5	108.8	91.6	82.2
137.5°	152.2	133.0	105.4	89.6	81.8
140°	137.4	123.6	103.4	88.9	79.8
142.5°	124.9	115.5	100.7	89.2	80.2
145°	114.5	109.5	98.7	89.2	80.8
147.5°	107.4	104.4	96.7	89.2	81.5
150°	101.4	100.0	94.6	88.9	81.5
152.5°	97.7	97.0	93.6	88.9	82.2
155°	94.3	94.3	92.3	88.6	82.2
157.5°	92.3	92.3	91.6	88.2	82.2
160°	90.9	91.3	90.6	88.2	82.8
162.5°	89.6	89.9	89.9	87.9	82.8
165°	89.2	89.2	89.2	87.6	82.8
167.5°	88.6	88.6	88.6	87.2	82.5
170°	87.9	87.9	87.9	86.9	82.2
172.5°	87.6	87.2	87.2	86.5	82.2
175°	87.2	87.2	87.2	86.5	82.2
177.5°	86.9	86.9	86.9	86.2	82.2
180°	85.5	85.5	85.5	85.5	85.5



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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	12.27	13.31	13.13	14.21	15.33	11.91	12.95	12.77	13.84	14.97
	3H	14.45	15.40	15.32	16.30	17.46	14.56	15.51	15.43	16.41	17.57
	4H	15.28	16.18	16.16	17.09	18.25	15.93	16.84	16.82	17.74	18.91
	6H	15.90	16.74	16.79	17.65	18.83	17.42	18.26	18.31	19.17	20.35
	8H	16.11	16.92	17.02	17.85	19.03	18.19	18.99	19.09	19.92	21.10
	12H	16.26	17.03	17.17	17.96	19.16	19.01	19.78	19.92	20.70	21.91
4H	2H	12.93	13.83	13.81	14.74	15.90	12.65	13.56	13.54	14.46	15.63
	3H	15.36	16.14	16.26	17.07	18.25	15.53	16.30	16.43	17.24	18.42
	4H	16.36	17.08	17.27	18.01	19.21	17.06	17.78	17.97	18.71	19.91
	6H	17.16	17.79	18.08	18.75	19.95	18.72	19.35	19.64	20.31	21.51
	8H	17.47	18.07	18.40	19.02	20.23	19.59	20.19	20.52	21.14	22.35
	12H	17.71	18.25	18.65	19.22	20.44	20.52	21.06	21.46	22.03	23.25
8H	4H	16.93	17.52	17.85	18.47	19.69	17.52	18.11	18.44	19.06	20.28
	6H	17.98	18.49	18.93	19.48	20.69	19.41	19.91	20.36	20.90	22.12
	8H	18.47	18.92	19.43	19.90	21.13	20.44	20.90	21.40	21.87	23.11
	12H	18.89	19.29	19.86	20.27	21.55	21.56	21.97	22.53	22.94	24.22
12H	4H	17.07	17.61	18.02	18.58	19.80	17.57	18.11	18.52	19.08	20.30
	6H	18.27	18.72	19.23	19.70	20.93	19.56	20.01	20.51	20.99	22.22
	8H	18.87	19.28	19.84	20.25	21.53	20.68	21.08	21.64	22.06	23.33