

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: P624654

Luminaire Tested: S930DIP-W130-X4-USTD-W

Issue Date: 11/3/2022

Test Information

Test Method: LM-79-2019
Report Number: P624654
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35539-R2)
Test Lab: INNOVATION CENTER
Issue Date: 11/3/2022
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S930DIP-W130-X4-USTD-W
Description: NEO-RAY COVERA DIRECT/INDIRECT 4-FOOT LED WaveStream LUMINAIRE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

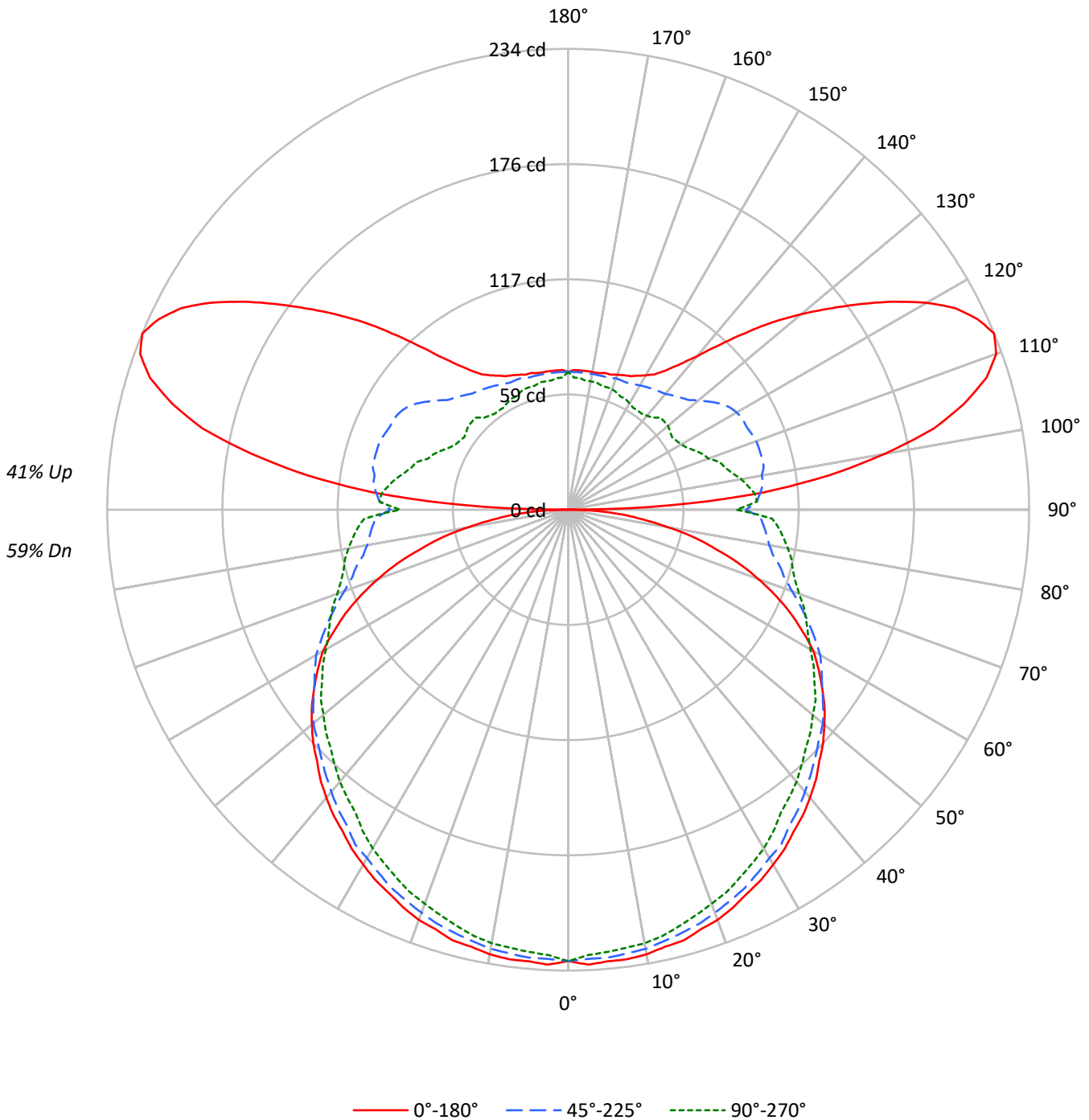
Lumens per Lamp: N/A
Luminaire Lumens: 1552.5 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.35 / 1.29 / 1.48
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 3.83' x H: 0.17')
CIE Type: General Diffuse

Input Watts (W): 14.7
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



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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	65	65	65	59
1	97	92	87	82	90	85	81	77	73	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	27	23	20
6	61	47	38	32	56	44	36	30	38	32	27	33	28	23	28	23	20	17
7	56	43	34	28	52	40	32	26	35	28	23	30	24	21	25	21	18	15
8	52	39	30	24	48	36	29	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	25	19	42	30	23	18	26	21	16	23	18	15	20	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	965	965	965
5°	970	948	933
10°	973	934	916
15°	976	919	894
20°	978	907	875
25°	979	898	858
30°	987	887	844
35°	995	879	823
40°	1013	876	819
45°	1029	875	813
50°	1058	887	818
55°	1088	891	825
60°	1127	915	835
65°	1137	926	865
70°	1129	948	910
75°	1088	1021	993
80°	1008	1154	1136
85°	868	1430	1346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 90°
 Luminance: 2409 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.8	1.4
10°-20°	63.0	4.1
20°-30°	97.8	6.3
30°-40°	122.6	7.9
40°-50°	136.8	8.8
50°-60°	140.4	9.0
60°-70°	130.7	8.4
70°-80°	111.4	7.2
80°-90°	93.5	6.0
90°-100°	106.7	6.9
100°-110°	130.8	8.4
110°-120°	123.8	8.0
120°-130°	97.7	6.3
130°-140°	68.9	4.4
140°-150°	47.2	3.0
150°-160°	32.8	2.1
160°-170°	19.8	1.3
170°-180°	6.7	0.4
0°-30°	182.6	11.8
0°-40°	305.2	19.7
0°-60°	582.5	37.5
0°-90°	918.1	59.1
90°-120°	361.4	23.3
90°-150°	575.1	37.0
90°-180°	634.0	40.8
0°-180°	1552.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	229	229	229	229	229	
5°	230	230	228	228	225	22
15°	226	225	222	222	219	64
25°	215	214	212	211	206	99
35°	200	198	196	194	188	125
45°	180	178	177	176	171	140
55°	157	155	157	159	152	141
65°	125	128	134	136	133	123
75°	78	91	111	120	118	82
85°	27	69	100	107	107	27
90°	0	78	90	89	85	9
95°	99	107	98	97	95	93
105°	208	165	102	87	82	216
115°	229	174	100	77	71	225
125°	182	145	94	73	64	164
135°	127	106	81	70	66	99
145°	86	82	75	67	61	55
155°	75	74	71	68	63	35
165°	72	71	70	69	65	20
175°	71	71	70	70	67	7
180°	70	70	70	70	70	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	229.2	229.2	229.2	229.2	229.2
2.5°	231.2	230.2	228.3	229.2	226.4
5°	230.2	230.2	228.3	228.3	225.4
7.5°	230.2	229.2	227.3	227.3	224.4
10°	229.2	228.3	226.4	226.4	223.5
12.5°	227.3	227.3	224.4	224.4	221.6
15°	226.4	225.4	222.5	222.5	218.7
17.5°	223.5	222.5	220.6	219.7	215.8
20°	221.6	220.6	217.7	216.8	212.9
22.5°	218.7	217.7	214.9	213.9	210.1
25°	214.9	213.9	212.0	211.0	206.2
27.5°	212.0	211.0	208.1	207.2	202.4
30°	208.1	207.2	204.3	202.4	198.5
32.5°	204.3	202.4	201.4	198.5	193.8
35°	199.5	197.6	195.7	193.8	188.0
37.5°	195.7	193.8	191.8	189.9	184.2
40°	190.9	188.0	187.0	185.1	180.3
42.5°	186.1	183.2	182.2	181.3	175.5
45°	180.3	178.4	177.4	176.5	170.7
47.5°	175.5	172.7	172.7	171.7	166.9
50°	169.8	166.9	168.8	167.9	162.1
52.5°	164.0	162.1	163.1	164.0	158.3
55°	157.3	155.4	157.3	159.2	152.5
57.5°	150.6	149.6	152.5	153.5	147.7
60°	143.9	142.9	147.7	147.7	142.0
62.5°	134.3	135.2	141.0	142.0	137.2
65°	124.7	127.6	134.3	136.2	133.3
67.5°	114.1	119.9	127.6	132.4	129.5
70°	102.6	111.3	120.9	127.6	124.7
72.5°	91.1	101.7	115.1	123.7	120.9
75°	77.7	91.1	111.3	119.9	118.0
77.5°	66.2	81.5	106.5	117.0	116.1
80°	51.8	73.9	103.6	114.1	113.2
82.5°	38.4	69.1	101.7	111.3	110.3
85°	26.9	69.1	99.8	107.4	107.4
87.5°	14.4	72.9	97.8	104.6	103.6
90°	0.0	77.7	90.2	89.2	85.4
92.5°	52.8	92.1	95.9	96.9	95.9
95°	98.8	107.4	97.8	96.9	95.0
97.5°	133.3	122.8	99.8	94.0	92.1
100°	163.1	139.1	99.8	92.1	89.2
102.5°	189.9	152.5	101.7	89.2	85.4
105°	208.1	165.0	101.7	87.3	82.5
107.5°	222.5	173.6	101.7	85.4	80.6
110°	231.2	177.4	101.7	83.4	75.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	234.0	177.4	100.7	79.6	73.9
115°	229.2	173.6	99.8	76.7	71.0
117.5°	221.6	168.8	99.8	74.8	68.1
120°	210.1	162.1	98.8	73.9	66.2
122.5°	196.6	153.5	96.9	72.9	65.2
125°	182.2	144.8	94.0	72.9	64.3
127.5°	167.9	135.2	90.2	73.9	65.2
130°	154.4	125.7	86.3	73.9	66.2
132.5°	141.0	116.1	82.5	72.9	66.2
135°	126.6	106.5	80.6	70.0	66.2
137.5°	113.2	97.8	78.7	68.1	63.3
140°	101.7	92.1	76.7	67.1	62.3
142.5°	93.0	87.3	75.8	66.2	61.4
145°	86.3	82.5	74.8	67.1	61.4
147.5°	81.5	79.6	73.9	67.1	61.4
150°	78.7	77.7	72.9	67.1	62.3
152.5°	76.7	75.8	71.9	68.1	63.3
155°	74.8	73.9	71.0	68.1	63.3
157.5°	73.9	72.9	71.0	68.1	64.3
160°	72.9	71.9	71.0	68.1	65.2
162.5°	71.9	71.9	70.0	69.1	65.2
165°	71.9	71.0	70.0	69.1	65.2
167.5°	71.0	71.0	70.0	69.1	66.2
170°	71.0	71.0	70.0	69.1	66.2
172.5°	71.0	71.0	70.0	69.1	66.2
175°	71.0	71.0	70.0	70.0	67.1
177.5°	71.0	71.0	70.0	70.0	67.1
180°	70.0	70.0	70.0	70.0	70.0



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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	8.45	9.49	9.30	10.38	11.51	9.10	10.14	9.95	11.03	12.16
	3H	10.54	11.49	11.41	12.39	13.55	11.87	12.82	12.74	13.72	14.87
	4H	11.33	12.23	12.21	13.14	14.30	13.33	14.23	14.21	15.14	16.30
	6H	11.90	12.75	12.80	13.66	14.83	14.95	15.79	15.85	16.71	17.88
	8H	12.09	12.90	12.99	13.83	15.00	15.82	16.62	16.72	17.56	18.73
	12H	12.21	12.98	13.12	13.91	15.11	16.77	17.54	17.68	18.47	19.67
4H	2H	9.28	10.18	10.16	11.09	12.25	9.76	10.67	10.65	11.58	12.74
	3H	11.62	12.40	12.52	13.33	14.51	12.77	13.54	13.67	14.48	15.66
	4H	12.58	13.30	13.49	14.23	15.43	14.40	15.11	15.31	16.05	17.25
	6H	13.34	13.97	14.26	14.92	16.12	16.21	16.84	17.13	17.80	18.99
	8H	13.61	14.21	14.54	15.16	16.38	17.18	17.78	18.11	18.73	19.94
	12H	13.81	14.35	14.76	15.32	16.54	18.25	18.79	19.19	19.76	20.98
8H	4H	13.30	13.90	14.23	14.85	16.07	14.80	15.40	15.73	16.35	17.56
	6H	14.33	14.84	15.28	15.83	17.04	16.84	17.35	17.79	18.34	19.55
	8H	14.79	15.25	15.75	16.22	17.45	17.99	18.44	18.94	19.42	20.65
	12H	15.17	15.57	16.13	16.54	17.82	19.25	19.66	20.22	20.63	21.91
12H	4H	13.51	14.05	14.46	15.02	16.24	14.84	15.38	15.79	16.35	17.57
	6H	14.71	15.16	15.66	16.14	17.37	16.97	17.42	17.93	18.40	19.63
	8H	15.29	15.70	16.26	16.67	17.95	18.19	18.60	19.16	19.57	20.85