

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P534525

Luminaire Tested: **S921DIP-W230-XX4XX-UDD-W-PC**

Issue Date: 6/9/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P534525  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35513)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S921DIP-W230-XX4XX-UDD-W-PC  
Description: NEO-RAY CONVERGE SUSPENDED LED WaveStream LUMINAIRE  
WHITE CURVILINEAR HOUSING WITH PERFORATED UPLIGHT COVER  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

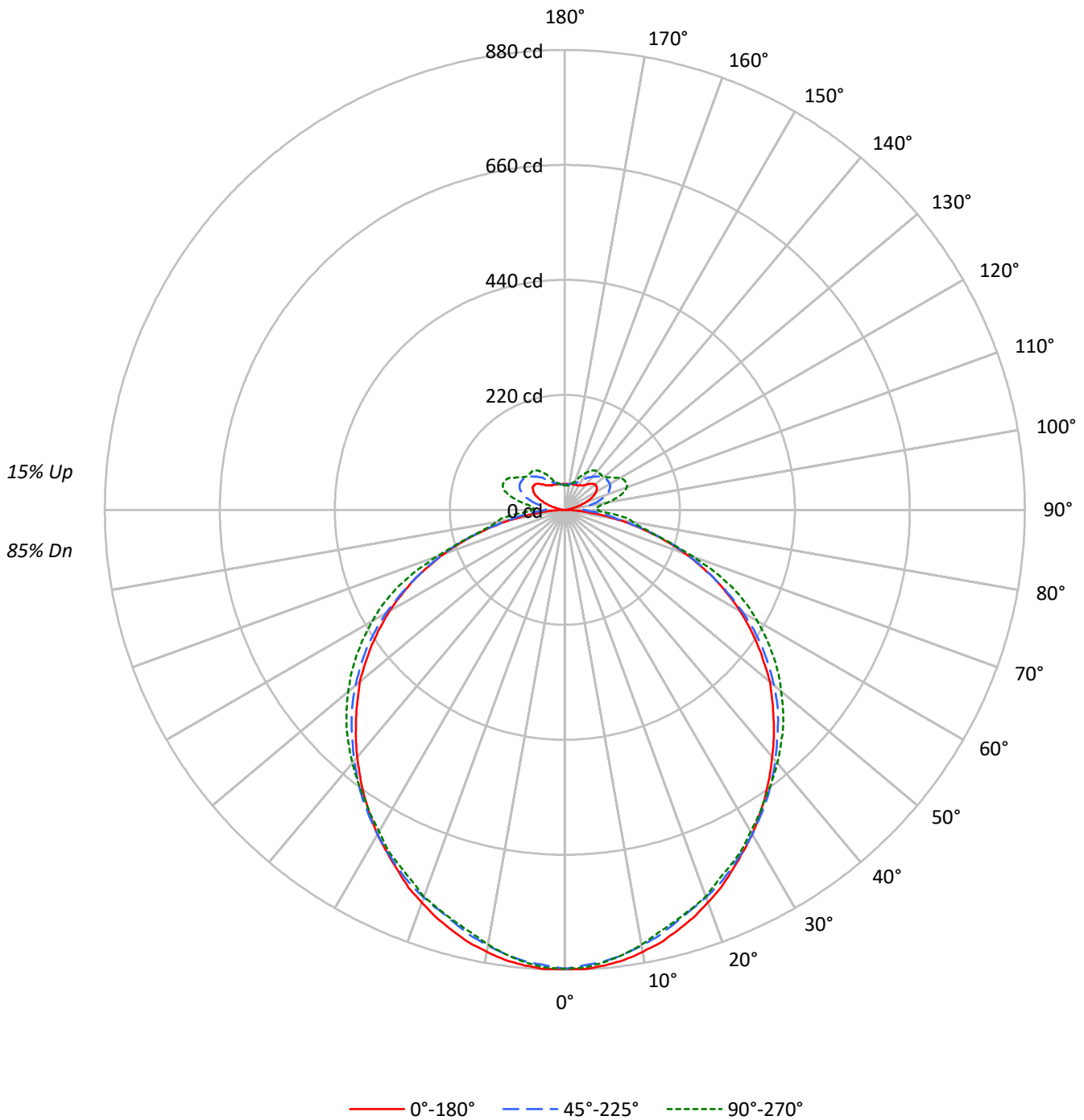
Lumens per Lamp: N/A  
Luminaire Lumens: 2985.7 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.21 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 4' x H: 0.31')  
CIE Type: Semi-Direct

Input Watts (W): 27.7  
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	115	115	115	115	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	105	100	96	92	101	96	92	89	89	86	83	83	80	78	77	75	73	70
2	95	87	80	74	91	84	77	72	78	73	68	72	68	64	67	64	61	58
3	87	76	68	61	83	73	66	60	68	62	57	63	58	54	59	55	51	48
4	79	67	58	52	76	65	57	51	60	54	48	56	51	46	53	48	44	41
5	73	60	51	44	69	58	50	43	54	47	42	50	44	40	47	42	38	36
6	67	54	45	39	64	52	44	38	49	42	36	46	39	35	43	37	33	31
7	62	49	40	34	59	47	39	33	44	37	32	41	35	31	39	34	30	27
8	58	44	36	30	55	43	35	30	40	33	28	38	32	27	36	30	26	24
9	54	41	32	27	52	39	32	27	37	30	26	35	29	25	33	28	24	22
10	50	37	30	24	48	36	29	24	34	28	23	32	26	22	31	25	22	20

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3488	3488	3488
5°	3466	3349	3332
10°	3416	3202	3155
15°	3356	3055	2987
20°	3288	2934	2857
25°	3211	2819	2712
30°	3148	2702	2582
35°	3077	2590	2465
40°	3008	2469	2374
45°	2946	2355	2279
50°	2898	2230	2166
55°	2810	2083	2042
60°	2713	1898	1887
65°	2575	1661	1691
70°	2353	1410	1337
75°	2011	1105	985
80°	1534	758	846
85°	802	570	675



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.5	2.8
10°-20°	232.3	7.8
20°-30°	348.7	11.7
30°-40°	421.6	14.1
40°-50°	446.7	15.0
50°-60°	416.6	14.0
60°-70°	325.3	10.9
70°-80°	183.8	6.2
80°-90°	73.1	2.4
90°-100°	43.0	1.4
100°-110°	73.4	2.5
110°-120°	93.5	3.1
120°-130°	84.8	2.8
130°-140°	65.9	2.2
140°-150°	46.7	1.6
150°-160°	28.1	0.9
160°-170°	14.8	0.5
170°-180°	4.7	0.2
0°-30°	663.6	22.2
0°-40°	1085.1	36.3
0°-60°	1948.4	65.3
0°-90°	2530.7	84.8
90°-120°	210.0	7.0
90°-150°	407.4	13.6
90°-180°	455.0	15.2
0°-180°	2985.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	875	875	868	871	869	83
15°	833	831	818	818	815	235
25°	759	761	756	753	750	350
35°	669	676	675	673	670	418
45°	565	575	577	587	590	436
55°	450	458	462	478	486	402
65°	319	318	319	345	356	314
75°	169	166	173	172	173	179
85°	33	44	66	83	92	41
90°	2	18	36	54	63	2
95°	4	23	39	54	63	6
105°	27	47	68	96	112	29
115°	59	77	95	118	128	57
125°	75	84	99	104	108	66
135°	71	71	90	95	96	54
145°	57	60	75	87	92	36
155°	53	54	59	66	71	24
165°	51	51	53	53	53	14
175°	50	50	48	48	47	5
180°	48	48	48	48	48	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	878.1	878.1	878.1	878.1	878.1
2.5°	879.6	879.6	872.1	876.6	876.6
5°	875.1	875.1	867.6	870.6	869.1
7.5°	869.1	867.6	858.5	860.1	858.5
10°	858.5	857.0	846.5	848.0	845.0
12.5°	848.0	845.0	834.4	831.4	828.4
15°	832.9	831.4	817.9	817.9	814.9
17.5°	817.9	814.9	802.8	804.3	801.3
20°	799.8	798.3	789.3	790.8	787.8
22.5°	781.7	780.2	774.2	772.7	766.7
25°	759.1	760.6	756.1	753.1	750.1
27.5°	738.0	739.6	736.5	735.0	733.5
30°	717.0	720.0	717.0	713.9	710.9
32.5°	692.9	697.4	695.9	692.9	691.4
35°	668.8	676.3	674.8	673.3	670.3
37.5°	643.2	653.7	650.7	652.2	652.2
40°	617.6	628.1	626.6	631.1	632.6
42.5°	591.9	601.0	601.0	610.0	611.5
45°	564.8	575.4	576.9	587.4	590.4
47.5°	537.7	546.8	551.3	563.3	566.3
50°	512.1	518.1	522.7	536.2	540.7
52.5°	480.5	488.0	492.5	509.1	515.1
55°	450.4	457.9	462.4	477.5	486.5
57.5°	418.7	426.3	429.3	447.3	456.4
60°	387.1	391.6	394.6	412.7	424.8
62.5°	352.5	355.5	357.0	381.1	393.1
65°	319.3	317.8	319.3	344.9	355.5
67.5°	281.7	281.7	284.7	305.8	310.3
70°	245.5	244.0	247.0	260.6	259.1
72.5°	207.9	203.3	212.4	212.4	212.4
75°	168.7	165.7	173.2	171.7	173.2
77.5°	132.5	132.5	134.1	140.1	146.1
80°	96.4	100.9	103.9	122.0	132.5
82.5°	61.8	69.3	84.3	113.0	120.5
85°	33.1	43.7	66.3	82.8	91.9
87.5°	12.0	28.6	43.7	58.7	66.3
90°	1.5	18.1	36.1	54.2	63.3
92.5°	1.5	19.6	36.1	52.7	60.2
95°	4.5	22.6	39.2	54.2	63.3
97.5°	9.0	27.1	42.2	60.2	70.8
100°	13.6	33.1	48.2	72.3	85.9
102.5°	19.6	39.2	58.7	85.9	99.4
105°	27.1	46.7	67.8	96.4	111.5
107.5°	34.6	55.7	76.8	105.4	120.5
110°	43.7	63.3	84.3	111.5	126.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	51.2	70.8	90.4	114.5	128.0
115°	58.7	76.8	94.9	117.5	128.0
117.5°	64.8	81.3	97.9	117.5	126.5
120°	69.3	84.3	99.4	114.5	122.0
122.5°	72.3	84.3	99.4	110.0	114.5
125°	75.3	84.3	99.4	103.9	108.4
127.5°	75.3	82.8	97.9	99.4	102.4
130°	75.3	79.8	94.9	96.4	97.9
132.5°	73.8	75.3	93.4	94.9	96.4
135°	70.8	70.8	90.4	94.9	96.4
137.5°	66.3	67.8	85.9	96.4	96.4
140°	63.3	64.8	82.8	94.9	96.4
142.5°	58.7	63.3	78.3	91.9	94.9
145°	57.2	60.2	75.3	87.4	91.9
147.5°	55.7	58.7	69.3	82.8	87.4
150°	54.2	57.2	63.3	78.3	81.3
152.5°	52.7	55.7	60.2	73.8	76.8
155°	52.7	54.2	58.7	66.3	70.8
157.5°	52.7	54.2	55.7	60.2	63.3
160°	51.2	52.7	54.2	57.2	57.2
162.5°	51.2	51.2	54.2	54.2	54.2
165°	51.2	51.2	52.7	52.7	52.7
167.5°	51.2	51.2	51.2	51.2	51.2
170°	49.7	49.7	49.7	49.7	49.7
172.5°	49.7	49.7	48.2	48.2	46.7
175°	49.7	49.7	48.2	48.2	46.7
177.5°	49.7	49.7	48.2	48.2	46.7
180°	48.2	48.2	48.2	48.2	48.2

(END OF REPORT)