

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: P534477

Luminaire Tested: **S920DIP-W140-XX4XX-UDD-W-PC**

Issue Date: 6/9/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P534477  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29792)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S920DIP-W140-XX4XX-UDD-W-PC  
Description: NEO-RAY CONVERGE SUSPENDED LED WaveStream LUMINAIRE  
WHITE RECTANCULAR HOUSING WITH PERFORATED UPLIGHT COVER  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

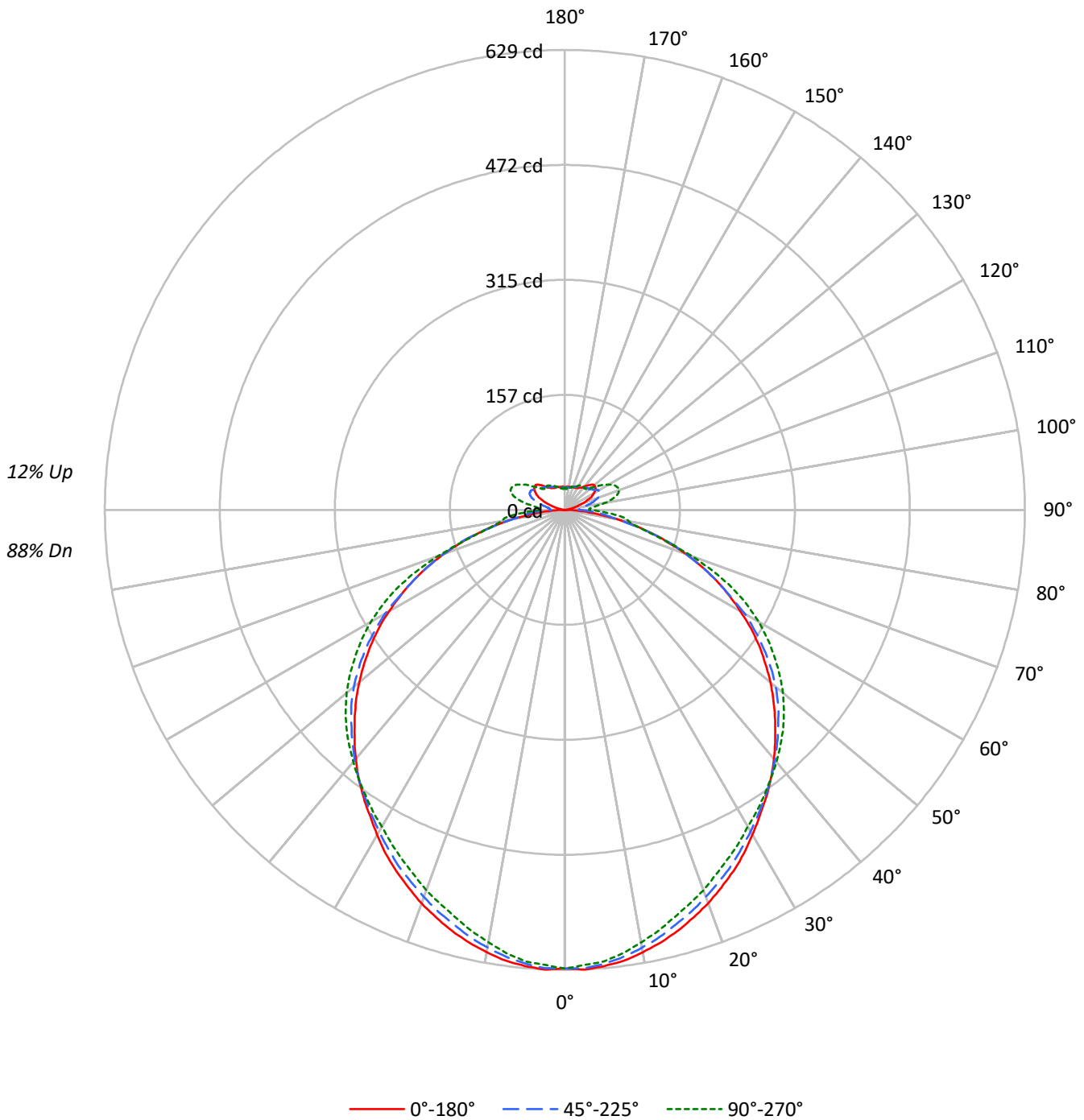
Lumens per Lamp: N/A  
Luminaire Lumens: 2051.4 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 4' x H: 0.31')  
CIE Type: Semi-Direct

Input Watts (W): 18.1  
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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	91	91	91	88
1	106	101	96	92	102	97	93	90	91	88	85	85	82	80	79	77	75	73
2	96	87	81	75	92	85	78	73	79	74	69	74	70	66	69	66	63	60
3	87	77	68	62	84	74	67	61	69	63	58	65	60	55	61	57	53	50
4	80	68	59	52	76	66	57	51	61	55	49	58	52	47	54	49	45	43
5	73	60	51	45	70	58	50	44	55	48	42	52	46	41	49	43	39	37
6	67	54	45	39	65	53	44	38	50	42	37	47	40	36	44	39	34	32
7	62	49	40	34	60	48	39	34	45	38	33	42	36	31	40	35	30	28
8	58	45	36	30	56	43	35	30	41	34	29	39	33	28	37	31	27	25
9	54	41	33	27	52	40	32	27	38	31	26	36	30	25	34	29	25	23
10	51	38	30	25	49	37	29	24	35	28	24	33	27	23	31	26	22	20

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

	0°	45°	90°
0°	2492	2492	2492
5°	2480	2405	2377
10°	2445	2300	2242
15°	2402	2192	2115
20°	2355	2094	2008
25°	2306	2004	1905
30°	2253	1913	1817
35°	2208	1834	1750
40°	2166	1761	1689
45°	2119	1685	1631
50°	2077	1607	1560
55°	2023	1499	1469
60°	1944	1365	1360
65°	1841	1187	1202
70°	1687	1005	947
75°	1462	776	673
80°	1120	514	565
85°	620	403	478



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.9	2.9
10°-20°	165.4	8.1
20°-30°	247.0	12.0
30°-40°	299.1	14.6
40°-50°	318.8	15.5
50°-60°	298.4	14.5
60°-70°	232.3	11.3
70°-80°	129.3	6.3
80°-90°	49.9	2.4
90°-100°	24.2	1.2
100°-110°	43.2	2.1
110°-120°	53.2	2.6
120°-130°	45.9	2.2
130°-140°	33.4	1.6
140°-150°	24.3	1.2
150°-160°	16.1	0.8
160°-170°	9.1	0.4
170°-180°	2.9	0.1
0°-30°	471.3	23.0
0°-40°	770.4	37.6
0°-60°	1387.6	67.6
0°-90°	1799.1	87.7
90°-120°	120.6	5.9
90°-150°	224.1	10.9
90°-180°	252.0	12.3
0°-180°	2051.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	626	622	623	621	620	59
15°	596	590	587	580	577	168
25°	545	541	538	529	527	251
35°	480	479	478	476	476	300
45°	406	406	413	419	422	314
55°	324	324	333	342	350	289
65°	228	227	228	246	253	225
75°	123	120	122	120	118	129
85°	26	30	47	60	65	30
90°	0	10	19	28	33	1
95°	2	12	21	31	38	2
105°	15	24	38	61	72	16
115°	38	38	53	68	77	37
125°	51	48	48	54	58	45
135°	48	44	43	40	40	37
145°	37	37	38	40	40	23
155°	33	33	35	36	35	16
165°	32	32	32	32	32	9
175°	32	31	31	31	29	3
180°	31	31	31	31	31	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	627.3	627.3	627.3	627.3	627.3
2.5°	629.4	625.1	627.3	626.2	623.0
5°	626.2	621.9	623.0	620.9	619.8
7.5°	621.9	616.6	616.6	613.4	611.3
10°	614.5	609.1	608.1	602.7	600.6
12.5°	605.9	600.6	598.5	592.1	589.9
15°	596.3	589.9	586.7	580.3	577.1
17.5°	584.6	579.3	576.1	568.6	565.4
20°	572.9	567.5	563.3	555.8	553.7
22.5°	559.0	553.7	550.5	541.9	539.8
25°	545.1	540.9	537.6	529.1	527.0
27.5°	530.2	525.9	522.7	516.3	514.2
30°	513.1	511.0	507.8	501.4	500.3
32.5°	496.0	495.0	492.8	488.6	488.6
35°	480.0	479.0	477.9	475.8	475.8
37.5°	463.0	461.9	463.0	461.9	463.0
40°	444.8	443.8	447.0	448.0	450.2
42.5°	425.6	425.6	429.9	434.2	436.3
45°	406.4	406.4	412.8	419.2	422.4
47.5°	387.2	387.2	395.8	402.2	406.4
50°	367.0	367.0	376.6	384.0	389.4
52.5°	345.6	345.6	355.2	364.8	370.2
55°	324.3	324.3	332.8	342.4	349.9
57.5°	301.9	301.9	308.3	321.1	328.6
60°	277.4	278.4	283.8	297.6	306.2
62.5°	252.8	252.8	253.9	273.1	280.6
65°	228.3	227.2	228.3	246.4	252.8
67.5°	202.7	200.6	201.6	219.8	219.8
70°	176.0	172.8	176.0	185.6	183.5
72.5°	148.3	145.1	151.5	150.4	148.3
75°	122.7	119.5	121.6	119.5	118.4
77.5°	96.0	93.9	92.8	93.9	97.1
80°	70.4	71.5	70.4	82.1	88.5
82.5°	45.9	48.0	56.5	74.7	82.1
85°	25.6	29.9	46.9	59.7	65.1
87.5°	9.6	19.2	30.9	41.6	46.9
90°	0.0	9.6	19.2	27.7	33.1
92.5°	1.1	9.6	20.3	27.7	33.1
95°	2.1	11.7	21.3	30.9	38.4
97.5°	3.2	13.9	23.5	37.3	45.9
100°	6.4	16.0	27.7	45.9	56.5
102.5°	10.7	19.2	33.1	54.4	65.1
105°	14.9	23.5	38.4	60.8	72.5
107.5°	20.3	26.7	43.7	65.1	76.8
110°	26.7	30.9	48.0	67.2	78.9



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CATALOG NUMBER: S920DIP-W140-XX4XX-UDD-W-PC

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	32.0	34.1	51.2	68.3	78.9
115°	38.4	38.4	53.3	68.3	76.8
117.5°	42.7	41.6	53.3	67.2	74.7
120°	45.9	44.8	53.3	65.1	69.3
122.5°	49.1	46.9	51.2	59.7	64.0
125°	51.2	48.0	48.0	54.4	57.6
127.5°	52.3	48.0	45.9	49.1	51.2
130°	52.3	48.0	43.7	43.7	46.9
132.5°	51.2	45.9	43.7	40.5	42.7
135°	48.0	43.7	42.7	40.5	40.5
137.5°	44.8	41.6	41.6	40.5	39.5
140°	41.6	40.5	40.5	40.5	40.5
142.5°	38.4	38.4	39.5	40.5	40.5
145°	37.3	37.3	38.4	40.5	40.5
147.5°	35.2	35.2	37.3	39.5	39.5
150°	34.1	35.2	36.3	38.4	38.4
152.5°	34.1	34.1	35.2	37.3	36.3
155°	33.1	33.1	35.2	36.3	35.2
157.5°	33.1	33.1	34.1	35.2	35.2
160°	33.1	32.0	33.1	34.1	33.1
162.5°	33.1	32.0	33.1	33.1	33.1
165°	32.0	32.0	32.0	32.0	32.0
167.5°	32.0	32.0	30.9	32.0	30.9
170°	32.0	30.9	30.9	30.9	29.9
172.5°	32.0	30.9	30.9	30.9	29.9
175°	32.0	30.9	30.9	30.9	28.8
177.5°	30.9	30.9	30.9	30.9	28.8
180°	30.9	30.9	30.9	30.9	30.9

(END OF REPORT)