

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: P534474

Luminaire Tested: **S920DIP-W135-XX4XX-UDD-W-PC**

Issue Date: 6/9/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P534474  
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-W135-XX4XX-UDD-W-PC  
Description: NEO-RAY CONVERGE SUSPENDED LED WaveStream LUMINAIRE  
WHITE RECTANCULAR HOUSING WITH PERFORATED UPLIGHT COVER  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

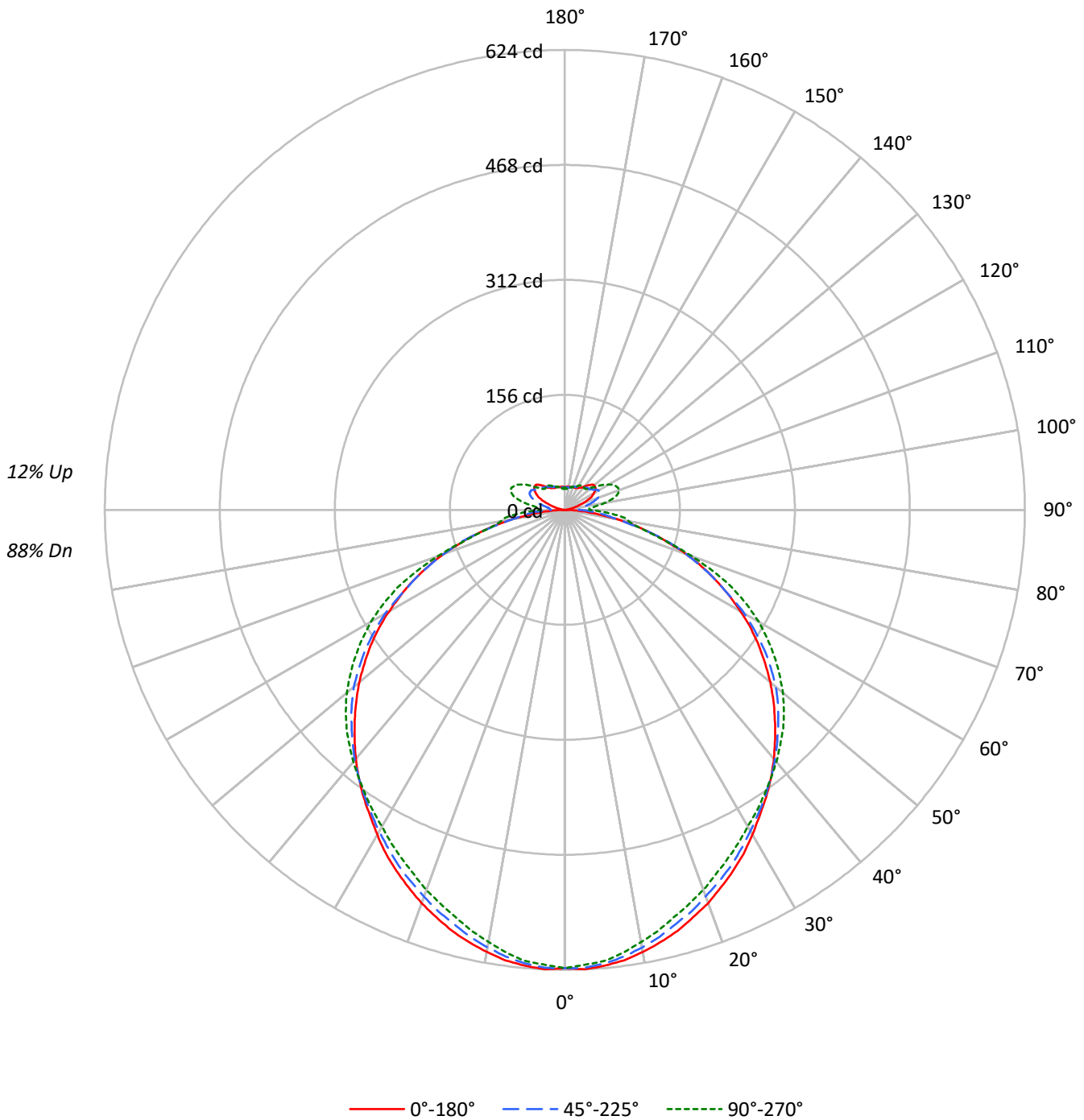
Lumens per Lamp: N/A  
Luminaire Lumens: 2034.0 lumens  
Efficiency: N/A  
Efficacy: 112.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 4' x H: 0.31')  
CIE Type: Semi-Direct

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°	2470	2470	2470
5°	2459	2384	2356
10°	2424	2280	2223
15°	2382	2173	2097
20°	2335	2076	1990
25°	2287	1988	1889
30°	2234	1897	1802
35°	2190	1818	1734
40°	2148	1747	1675
45°	2102	1670	1617
50°	2059	1593	1547
55°	2006	1486	1456
60°	1927	1353	1349
65°	1825	1177	1192
70°	1672	996	939
75°	1449	770	668
80°	1111	509	561
85°	615	400	474



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.4	2.9
10°-20°	164.0	8.1
20°-30°	244.9	12.0
30°-40°	296.5	14.6
40°-50°	316.1	15.5
50°-60°	295.9	14.5
60°-70°	230.3	11.3
70°-80°	128.2	6.3
80°-90°	49.5	2.4
90°-100°	24.0	1.2
100°-110°	42.9	2.1
110°-120°	52.7	2.6
120°-130°	45.5	2.2
130°-140°	33.1	1.6
140°-150°	24.1	1.2
150°-160°	16.0	0.8
160°-170°	9.1	0.4
170°-180°	2.9	0.1
0°-30°	467.3	23.0
0°-40°	763.8	37.6
0°-60°	1375.8	67.6
0°-90°	1783.8	87.7
90°-120°	119.6	5.9
90°-150°	222.2	10.9
90°-180°	250.0	12.3
0°-180°	2034.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	621	617	618	616	614	59
15°	591	585	582	575	572	167
25°	540	536	533	525	522	249
35°	476	475	474	472	472	298
45°	403	403	409	416	419	311
55°	322	322	330	340	347	287
65°	226	225	226	244	251	223
75°	122	118	121	118	117	128
85°	25	30	46	59	64	30
90°	0	10	19	28	33	1
95°	2	12	21	31	38	2
105°	15	23	38	60	72	16
115°	38	38	53	68	76	37
125°	51	48	48	54	57	45
135°	48	43	42	40	40	37
145°	37	37	38	40	40	23
155°	33	33	35	36	35	15
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°	621.9	621.9	621.9	621.9	621.9
2.5°	624.0	619.8	621.9	620.9	617.7
5°	620.9	616.6	617.7	615.6	614.5
7.5°	616.6	611.4	611.4	608.2	606.1
10°	609.2	603.9	602.9	597.6	595.5
12.5°	600.8	595.5	593.4	587.0	584.9
15°	591.3	584.9	581.7	575.4	572.2
17.5°	579.6	574.3	571.2	563.8	560.6
20°	568.0	562.7	558.5	551.1	548.9
22.5°	554.2	548.9	545.8	537.3	535.2
25°	540.5	536.3	533.1	524.6	522.5
27.5°	525.7	521.4	518.3	511.9	509.8
30°	508.8	506.6	503.5	497.1	496.1
32.5°	491.8	490.8	488.7	484.4	484.4
35°	476.0	474.9	473.8	471.7	471.7
37.5°	459.0	458.0	459.0	458.0	459.0
40°	441.1	440.0	443.2	444.2	446.3
42.5°	422.0	422.0	426.3	430.5	432.6
45°	403.0	403.0	409.3	415.7	418.8
47.5°	383.9	383.9	392.4	398.8	403.0
50°	363.8	363.8	373.4	380.8	386.1
52.5°	342.7	342.7	352.2	361.7	367.0
55°	321.5	321.5	330.0	339.5	346.9
57.5°	299.3	299.3	305.7	318.4	325.8
60°	275.0	276.1	281.3	295.1	303.6
62.5°	250.7	250.7	251.7	270.8	278.2
65°	226.3	225.3	226.3	244.3	250.7
67.5°	201.0	198.8	199.9	217.9	217.9
70°	174.5	171.3	174.5	184.0	181.9
72.5°	147.0	143.8	150.2	149.1	147.0
75°	121.6	118.5	120.6	118.5	117.4
77.5°	95.2	93.1	92.0	93.1	96.3
80°	69.8	70.9	69.8	81.4	87.8
82.5°	45.5	47.6	56.1	74.0	81.4
85°	25.4	29.6	46.5	59.2	64.5
87.5°	9.5	19.0	30.7	41.3	46.5
90°	0.0	9.5	19.0	27.5	32.8
92.5°	1.1	9.5	20.1	27.5	32.8
95°	2.1	11.6	21.2	30.7	38.1
97.5°	3.2	13.8	23.3	37.0	45.5
100°	6.3	15.9	27.5	45.5	56.1
102.5°	10.6	19.0	32.8	53.9	64.5
105°	14.8	23.3	38.1	60.3	71.9
107.5°	20.1	26.4	43.4	64.5	76.2
110°	26.4	30.7	47.6	66.6	78.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	31.7	33.8	50.8	67.7	78.3
115°	38.1	38.1	52.9	67.7	76.2
117.5°	42.3	41.3	52.9	66.6	74.0
120°	45.5	44.4	52.9	64.5	68.8
122.5°	48.7	46.5	50.8	59.2	63.5
125°	50.8	47.6	47.6	53.9	57.1
127.5°	51.8	47.6	45.5	48.7	50.8
130°	51.8	47.6	43.4	43.4	46.5
132.5°	50.8	45.5	43.4	40.2	42.3
135°	47.6	43.4	42.3	40.2	40.2
137.5°	44.4	41.3	41.3	40.2	39.1
140°	41.3	40.2	40.2	40.2	40.2
142.5°	38.1	38.1	39.1	40.2	40.2
145°	37.0	37.0	38.1	40.2	40.2
147.5°	34.9	34.9	37.0	39.1	39.1
150°	33.8	34.9	36.0	38.1	38.1
152.5°	33.8	33.8	34.9	37.0	36.0
155°	32.8	32.8	34.9	36.0	34.9
157.5°	32.8	32.8	33.8	34.9	34.9
160°	32.8	31.7	32.8	33.8	32.8
162.5°	32.8	31.7	32.8	32.8	32.8
165°	31.7	31.7	31.7	31.7	31.7
167.5°	31.7	31.7	30.7	31.7	30.7
170°	31.7	30.7	30.7	30.7	29.6
172.5°	31.7	30.7	30.7	30.7	29.6
175°	31.7	30.7	30.7	30.7	28.6
177.5°	30.7	30.7	30.7	30.7	28.6
180°	30.7	30.7	30.7	30.7	30.7

(END OF REPORT)