

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: P534504

Luminaire Tested: **S920DIP-W440-XX4XX-UDD-W-PC**

Issue Date: 6/9/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P534504  
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-W440-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**

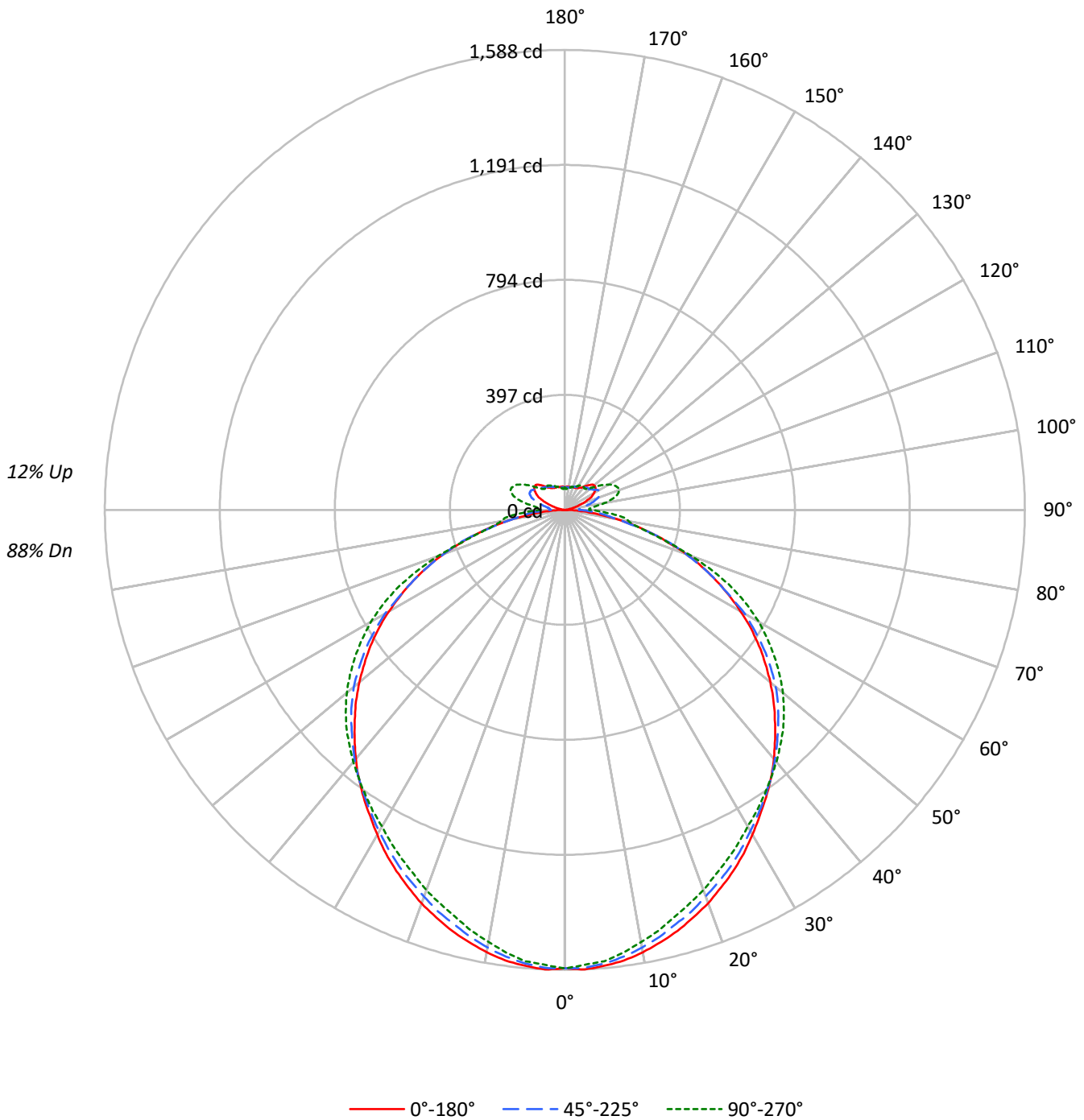
Lumens per Lamp: N/A  
Luminaire Lumens: 5177.4 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.2 / 1.36  
Luminous Opening: Rectangular w/ Sides (W: 0.68' x L: 4' x H: 0.31')  
CIE Type: Semi-Direct

Input Watts (W): 50.7  
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	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°	6288	6288	6288
5°	6259	6069	5998
10°	6171	5804	5659
15°	6063	5531	5338
20°	5944	5285	5067
25°	5820	5059	4808
30°	5686	4828	4586
35°	5574	4629	4415
40°	5468	4445	4263
45°	5350	4252	4115
50°	5241	4054	3937
55°	5106	3784	3706
60°	4906	3444	3433
65°	4647	2997	3035
70°	4257	2536	2390
75°	3690	1959	1699
80°	2828	1297	1428
85°	1565	1019	1207



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.7	2.9
10°-20°	417.3	8.1
20°-30°	623.4	12.0
30°-40°	754.8	14.6
40°-50°	804.6	15.5
50°-60°	753.1	14.5
60°-70°	586.2	11.3
70°-80°	326.4	6.3
80°-90°	126.0	2.4
90°-100°	61.1	1.2
100°-110°	109.1	2.1
110°-120°	134.2	2.6
120°-130°	115.8	2.2
130°-140°	84.2	1.6
140°-150°	61.2	1.2
150°-160°	40.7	0.8
160°-170°	23.1	0.4
170°-180°	7.4	0.1
0°-30°	1189.4	23.0
0°-40°	1944.2	37.6
0°-60°	3501.9	67.6
0°-90°	4540.6	87.7
90°-120°	304.4	5.9
90°-150°	565.6	10.9
90°-180°	637.0	12.3
0°-180°	5177.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1583	1583	1583	1583	1583	
5°	1580	1570	1572	1567	1564	150
15°	1505	1489	1481	1465	1456	424
25°	1376	1365	1357	1335	1330	634
35°	1212	1209	1206	1201	1201	758
45°	1026	1026	1042	1058	1066	792
55°	818	818	840	864	883	731
65°	576	574	576	622	638	569
75°	310	302	307	302	299	326
85°	65	75	118	151	164	76
90°	0	24	48	70	84	4
95°	5	30	54	78	97	6
105°	38	59	97	154	183	41
115°	97	97	135	172	194	93
125°	129	121	121	137	145	114
135°	121	110	108	102	102	94
145°	94	94	97	102	102	59
155°	84	84	89	92	89	39
165°	81	81	81	81	81	23
175°	81	78	78	78	73	8
180°	78	78	78	78	78	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1583.1	1583.1	1583.1	1583.1	1583.1
2.5°	1588.5	1577.7	1583.1	1580.4	1572.3
5°	1580.4	1569.6	1572.3	1566.9	1564.2
7.5°	1569.6	1556.1	1556.1	1548.1	1542.7
10°	1550.8	1537.3	1534.6	1521.1	1515.8
12.5°	1529.2	1515.8	1510.4	1494.2	1488.8
15°	1505.0	1488.8	1480.8	1464.6	1456.5
17.5°	1475.4	1461.9	1453.8	1435.0	1426.9
20°	1445.8	1432.3	1421.5	1402.7	1397.3
22.5°	1410.8	1397.3	1389.2	1367.7	1362.3
25°	1375.8	1365.0	1356.9	1335.4	1330.0
27.5°	1338.1	1327.3	1319.2	1303.1	1297.7
30°	1295.0	1289.6	1281.5	1265.4	1262.7
32.5°	1251.9	1249.2	1243.8	1233.1	1233.1
35°	1211.5	1208.8	1206.1	1200.8	1200.8
37.5°	1168.5	1165.8	1168.5	1165.8	1168.5
40°	1122.7	1120.0	1128.1	1130.8	1136.1
42.5°	1074.2	1074.2	1085.0	1095.8	1101.1
45°	1025.8	1025.8	1041.9	1058.1	1066.1
47.5°	977.3	977.3	998.8	1015.0	1025.8
50°	926.1	926.1	950.4	969.2	982.7
52.5°	872.3	872.3	896.5	920.8	934.2
55°	818.5	818.5	840.0	864.2	883.1
57.5°	761.9	761.9	778.1	810.4	829.2
60°	700.0	702.7	716.2	751.1	772.7
62.5°	638.1	638.1	640.8	689.2	708.1
65°	576.2	573.5	576.2	621.9	638.1
67.5°	511.5	506.2	508.8	554.6	554.6
70°	444.2	436.2	444.2	468.5	463.1
72.5°	374.2	366.2	382.3	379.6	374.2
75°	309.6	301.5	306.9	301.5	298.8
77.5°	242.3	236.9	234.2	236.9	245.0
80°	177.7	180.4	177.7	207.3	223.5
82.5°	115.8	121.2	142.7	188.5	207.3
85°	64.6	75.4	118.5	150.8	164.2
87.5°	24.2	48.5	78.1	105.0	118.5
90°	0.0	24.2	48.5	70.0	83.5
92.5°	2.7	24.2	51.2	70.0	83.5
95°	5.4	29.6	53.8	78.1	96.9
97.5°	8.1	35.0	59.2	94.2	115.8
100°	16.2	40.4	70.0	115.8	142.7
102.5°	26.9	48.5	83.5	137.3	164.2
105°	37.7	59.2	96.9	153.5	183.1
107.5°	51.2	67.3	110.4	164.2	193.8
110°	67.3	78.1	121.2	169.6	199.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	80.8	86.2	129.2	172.3	199.2
115°	96.9	96.9	134.6	172.3	193.8
117.5°	107.7	105.0	134.6	169.6	188.5
120°	115.8	113.1	134.6	164.2	175.0
122.5°	123.8	118.5	129.2	150.8	161.5
125°	129.2	121.2	121.2	137.3	145.4
127.5°	131.9	121.2	115.8	123.8	129.2
130°	131.9	121.2	110.4	110.4	118.5
132.5°	129.2	115.8	110.4	102.3	107.7
135°	121.2	110.4	107.7	102.3	102.3
137.5°	113.1	105.0	105.0	102.3	99.6
140°	105.0	102.3	102.3	102.3	102.3
142.5°	96.9	96.9	99.6	102.3	102.3
145°	94.2	94.2	96.9	102.3	102.3
147.5°	88.8	88.8	94.2	99.6	99.6
150°	86.2	88.8	91.5	96.9	96.9
152.5°	86.2	86.2	88.8	94.2	91.5
155°	83.5	83.5	88.8	91.5	88.8
157.5°	83.5	83.5	86.2	88.8	88.8
160°	83.5	80.8	83.5	86.2	83.5
162.5°	83.5	80.8	83.5	83.5	83.5
165°	80.8	80.8	80.8	80.8	80.8
167.5°	80.8	80.8	78.1	80.8	78.1
170°	80.8	78.1	78.1	78.1	75.4
172.5°	80.8	78.1	78.1	78.1	75.4
175°	80.8	78.1	78.1	78.1	72.7
177.5°	78.1	78.1	78.1	78.1	72.7
180°	78.1	78.1	78.1	78.1	78.1

(END OF REPORT)