

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: P1060251

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060251  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D850-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

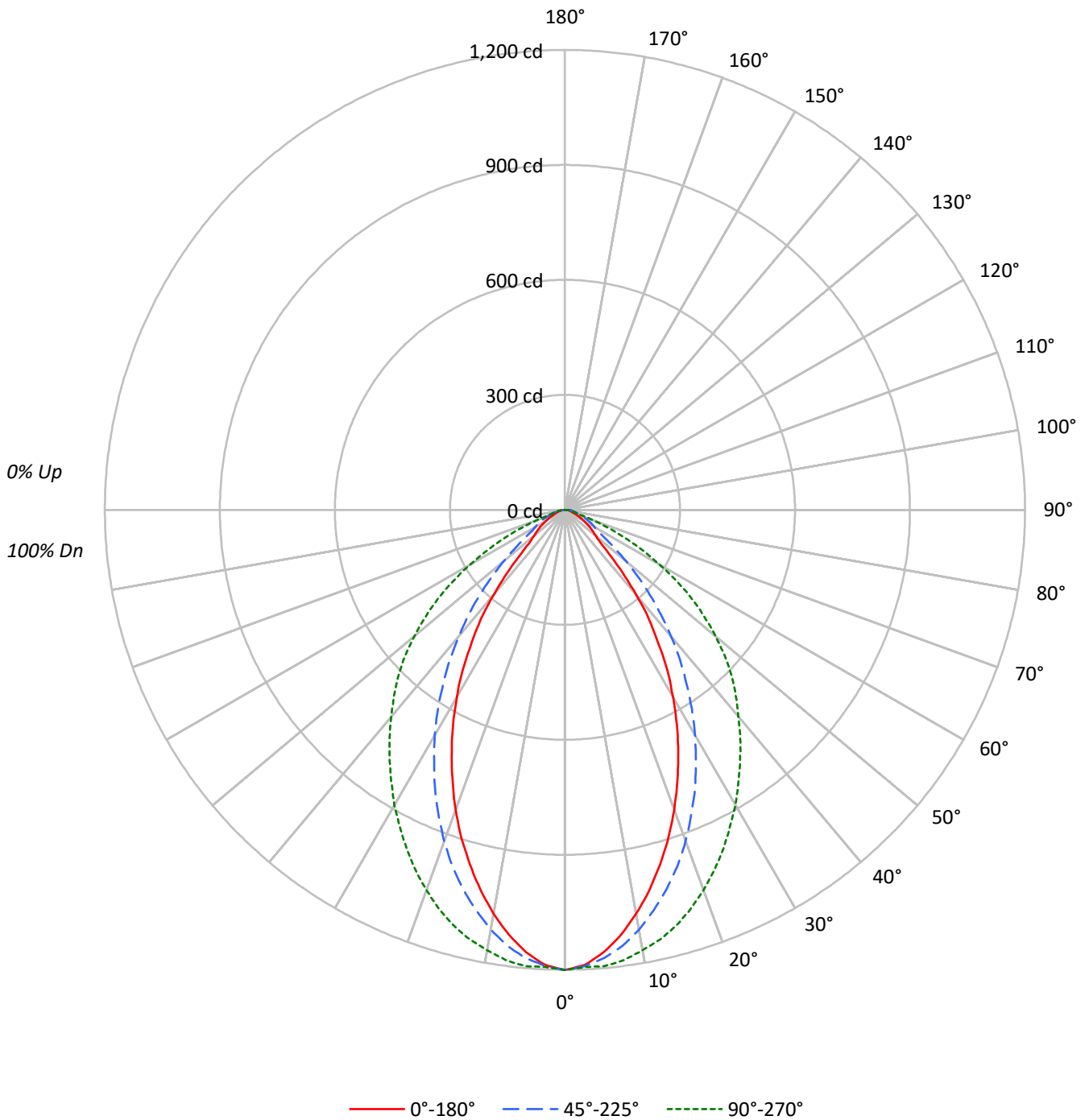
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1699.1 lumens  
Efficiency: N/A  
Efficacy: 48.5 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

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

	0°	45°	90°
0°	10338	10338	10338
5°	10018	10145	10330
10°	9359	9722	10203
15°	8538	9135	10009
20°	7633	8432	9673
25°	6640	7621	9278
30°	5601	6749	8843
35°	4455	5809	8375
40°	3242	4840	7916
45°	1961	3823	7498
50°	1401	2768	6864
55°	1188	1872	6061
60°	970	1524	4898
65°	766	1367	3525
70°	642	1148	1858
75°	579	1071	938
80°	600	1066	932
85°	790	1591	1057

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7498 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	110.5	6.5
10°-20°	289.6	17.0
20°-30°	375.6	22.1
30°-40°	361.6	21.3
40°-50°	269.0	15.8
50°-60°	165.4	9.7
60°-70°	81.2	4.8
70°-80°	31.7	1.9
80°-90°	14.5	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	775.7	45.7
0°-40°	1137.3	66.9
0°-60°	1571.7	92.5
0°-90°	1699.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1699.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1200	1200	1200	1200	1200	
5°	1159	1176	1174	1184	1195	108
15°	958	988	1025	1086	1123	268
25°	699	736	802	903	976	320
35°	424	464	553	691	797	265
45°	161	200	314	484	616	134
55°	79	82	125	284	404	71
65°	38	40	67	107	173	39
75°	17	31	32	30	28	19
85°	8	15	16	16	11	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1200.5	1200.5	1200.5	1200.5	1200.5
2.5°	1188.4	1201.8	1191.1	1192.4	1193.7
5°	1158.9	1176.3	1173.6	1184.4	1195.1
7.5°	1118.6	1138.8	1148.1	1169.6	1184.4
10°	1070.3	1093.1	1111.9	1146.8	1166.9
12.5°	1016.7	1043.5	1070.3	1117.3	1148.1
15°	957.7	988.5	1024.7	1086.4	1122.7
17.5°	897.3	928.2	975.1	1046.2	1091.8
20°	832.9	866.5	920.1	999.3	1055.6
22.5°	765.9	802.1	861.1	951.0	1018.0
25°	698.8	736.4	802.1	902.7	976.5
27.5°	631.7	668.0	739.0	851.7	932.2
30°	563.3	600.9	678.7	796.7	889.3
32.5°	497.6	532.5	615.7	744.4	842.3
35°	423.8	464.1	552.6	690.8	796.7
37.5°	360.8	397.0	492.3	637.1	751.1
40°	288.4	328.6	430.6	584.8	704.2
42.5°	221.3	261.6	371.5	532.5	659.9
45°	161.0	199.9	313.9	484.2	615.7
47.5°	122.1	144.9	257.5	437.3	566.0
50°	104.6	111.3	206.6	386.3	512.4
52.5°	92.5	95.2	161.0	335.3	458.7
55°	79.1	81.8	124.7	284.4	403.7
57.5°	67.1	68.4	100.6	236.1	344.7
60°	56.3	57.7	88.5	189.1	284.4
62.5°	46.9	48.3	79.1	146.2	226.7
65°	37.6	40.2	67.1	107.3	173.0
67.5°	30.8	36.2	56.3	75.1	120.7
70°	25.5	34.9	45.6	52.3	73.8
72.5°	21.5	32.2	38.9	37.6	36.2
75°	17.4	30.8	32.2	29.5	28.2
77.5°	14.8	26.8	26.8	24.1	22.8
80°	12.1	21.5	21.5	21.5	18.8
82.5°	10.7	17.4	18.8	18.8	14.8
85°	8.0	14.8	16.1	16.1	10.7
87.5°	5.4	13.4	14.8	13.4	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)