

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: P1060242

Luminaire Tested: S124RDR-S1020D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060242  
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-S1020D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

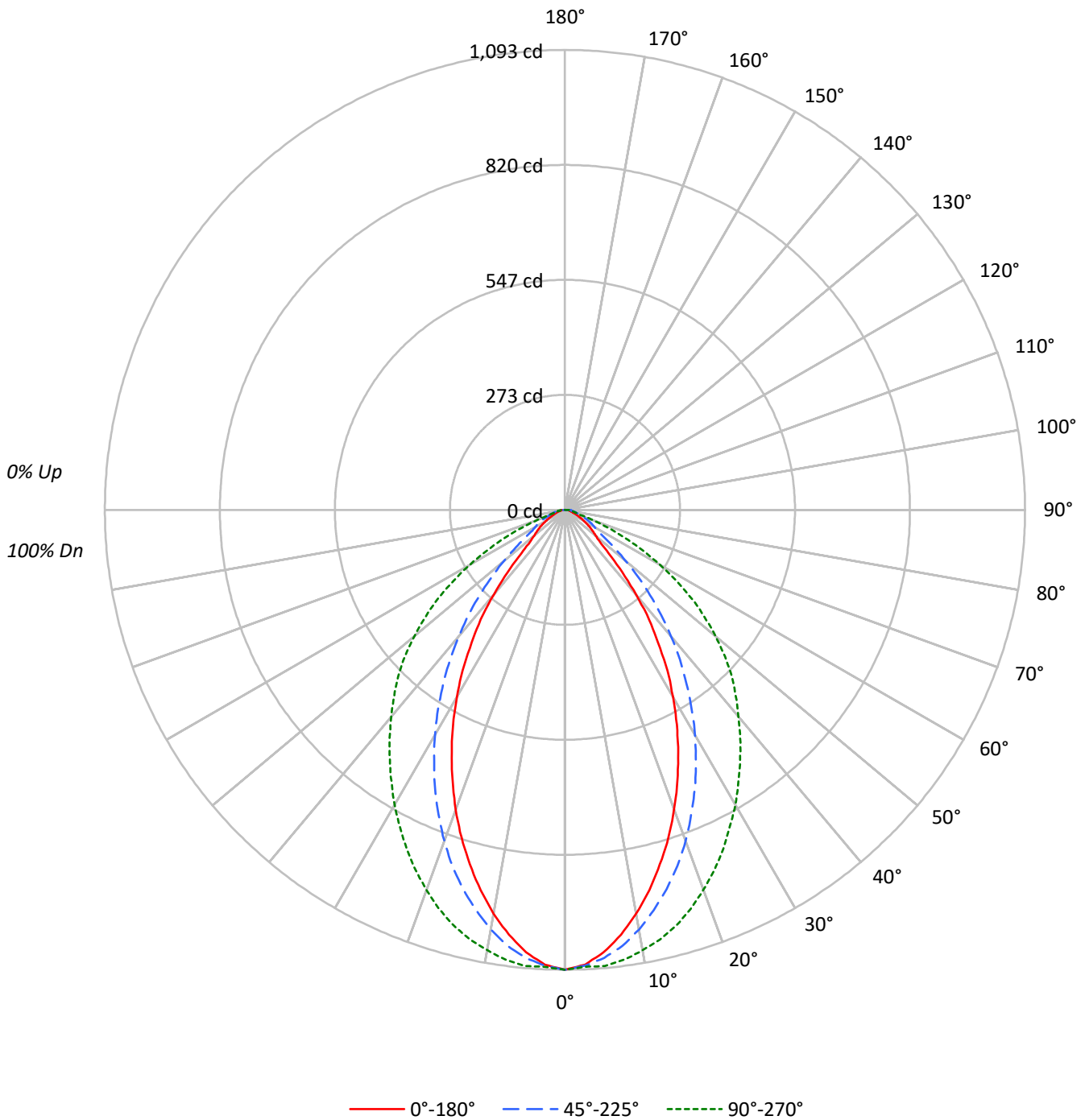
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1547.2 lumens  
Efficiency: N/A  
Efficacy: 44.2 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°	9413	9413	9413
5°	9122	9238	9407
10°	8523	8853	9291
15°	7775	8318	9114
20°	6951	7678	8808
25°	6046	6940	8449
30°	5101	6145	8052
35°	4058	5290	7627
40°	2952	4408	7208
45°	1785	3480	6827
50°	1277	2520	6251
55°	1082	1705	5519
60°	884	1388	4459
65°	697	1245	3211
70°	584	1045	1692
75°	529	975	852
80°	545	967	848
85°	721	1452	968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6827 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.6	6.5
10°-20°	263.7	17.0
20°-30°	342.0	22.1
30°-40°	329.2	21.3
40°-50°	244.9	15.8
50°-60°	150.6	9.7
60°-70°	74.0	4.8
70°-80°	28.8	1.9
80°-90°	13.2	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°	706.4	45.7
0°-40°	1035.6	66.9
0°-60°	1431.2	92.5
0°-90°	1547.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1547.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1055	1071	1069	1078	1088	98
15°	872	900	933	989	1022	244
25°	636	670	730	822	889	291
35°	386	423	503	629	726	241
45°	147	182	286	441	561	122
55°	72	74	114	259	368	65
65°	34	37	61	98	158	35
75°	16	28	29	27	26	17
85°	7	13	15	15	10	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1093.1	1093.1	1093.1	1093.1	1093.1
2.5°	1082.2	1094.4	1084.6	1085.8	1087.0
5°	1055.3	1071.2	1068.7	1078.5	1088.3
7.5°	1018.6	1037.0	1045.5	1065.1	1078.5
10°	974.7	995.4	1012.5	1044.3	1062.6
12.5°	925.8	950.2	974.7	1017.4	1045.5
15°	872.1	900.2	933.1	989.3	1022.3
17.5°	817.1	845.2	887.9	952.7	994.2
20°	758.5	789.0	837.9	909.9	961.2
22.5°	697.4	730.4	784.1	866.0	927.0
25°	636.3	670.5	730.4	822.0	889.2
27.5°	575.3	608.3	673.0	775.6	848.9
30°	513.0	547.2	618.0	725.5	809.8
32.5°	453.1	484.9	560.6	677.9	767.0
35°	386.0	422.6	503.2	629.0	725.5
37.5°	328.6	361.5	448.2	580.2	684.0
40°	262.6	299.2	392.1	532.5	641.2
42.5°	201.5	238.2	338.3	484.9	600.9
45°	146.6	182.0	285.8	440.9	560.6
47.5°	111.1	131.9	234.5	398.2	515.4
50°	95.3	101.4	188.1	351.8	466.6
52.5°	84.3	86.7	146.6	305.3	417.7
55°	72.1	74.5	113.6	258.9	367.6
57.5°	61.1	62.3	91.6	215.0	313.9
60°	51.3	52.5	80.6	172.2	258.9
62.5°	42.7	44.0	72.1	133.1	206.4
65°	34.2	36.6	61.1	97.7	157.6
67.5°	28.1	33.0	51.3	68.4	109.9
70°	23.2	31.8	41.5	47.6	67.2
72.5°	19.5	29.3	35.4	34.2	33.0
75°	15.9	28.1	29.3	26.9	25.6
77.5°	13.4	24.4	24.4	22.0	20.8
80°	11.0	19.5	19.5	19.5	17.1
82.5°	9.8	15.9	17.1	17.1	13.4
85°	7.3	13.4	14.7	14.7	9.8
87.5°	4.9	12.2	13.4	12.2	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)