

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: P1060224

Luminaire Tested: S124RDR-S1020D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060224  
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-S1020D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

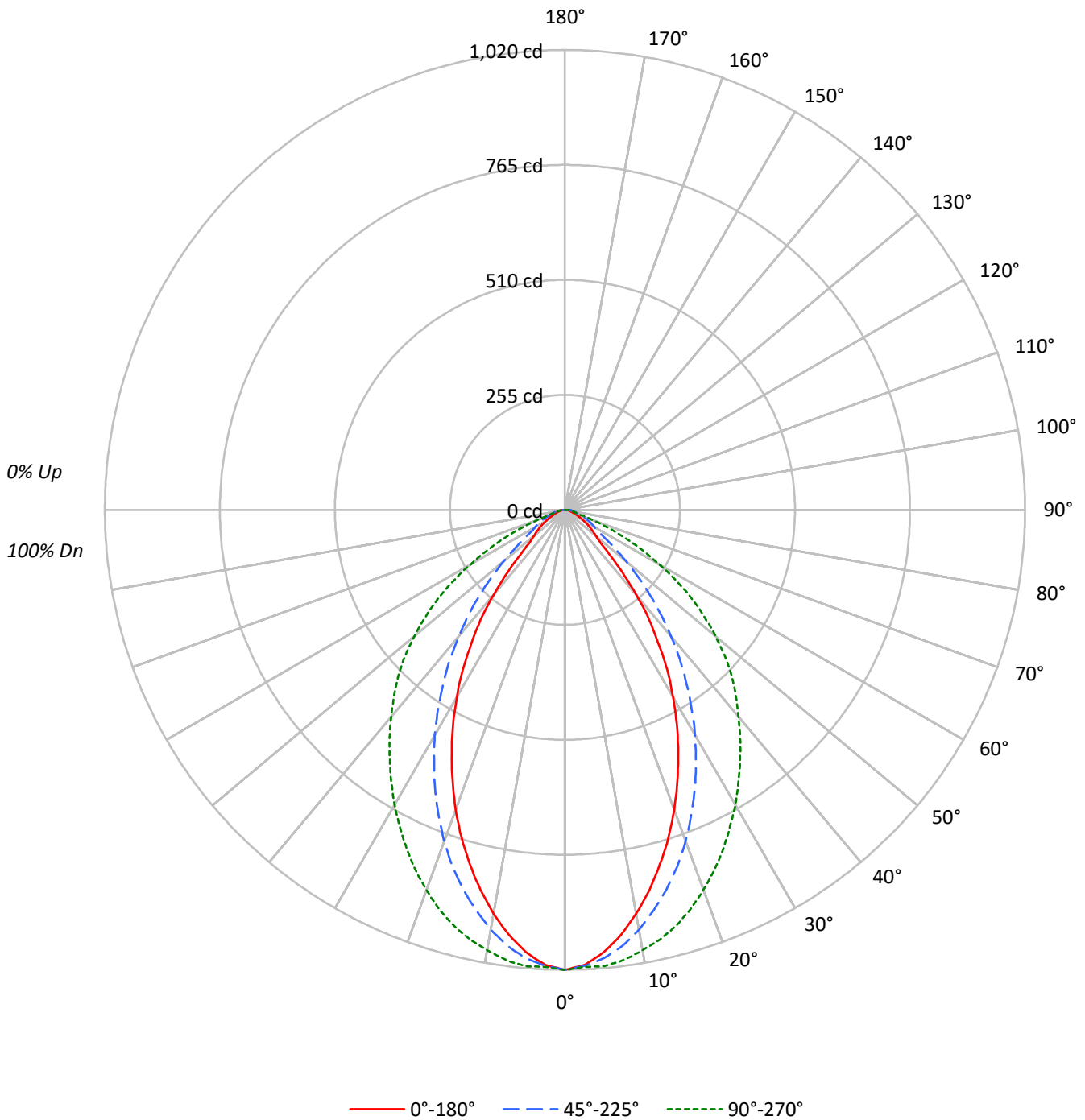
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1444.0 lumens  
Efficiency: N/A  
Efficacy: 41.3 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°	8786	8786	8786
5°	8514	8622	8780
10°	7954	8263	8672
15°	7256	7764	8507
20°	6487	7166	8222
25°	5643	6477	7885
30°	4761	5735	7515
35°	3787	4938	7118
40°	2755	4113	6728
45°	1666	3249	6372
50°	1191	2352	5834
55°	1010	1591	5151
60°	825	1295	4163
65°	650	1161	2997
70°	546	977	1579
75°	492	912	795
80°	511	903	793
85°	672	1354	899

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6372 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	6.5
10°-20°	246.2	17.0
20°-30°	319.2	22.1
30°-40°	307.3	21.3
40°-50°	228.6	15.8
50°-60°	140.6	9.7
60°-70°	69.0	4.8
70°-80°	26.9	1.9
80°-90°	12.3	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°	659.3	45.7
0°-40°	966.6	66.9
0°-60°	1335.8	92.5
0°-90°	1444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1444.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	985	1000	998	1007	1016	92
15°	814	840	871	923	954	227
25°	594	626	682	767	830	272
35°	360	394	470	587	677	225
45°	137	170	267	412	523	114
55°	67	70	106	242	343	61
65°	32	34	57	91	147	33
75°	15	26	27	25	24	16
85°	7	12	14	14	9	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1020.3	1020.3	1020.3	1020.3	1020.3
2.5°	1010.0	1021.4	1012.3	1013.4	1014.6
5°	984.9	999.7	997.5	1006.6	1015.7
7.5°	950.7	967.8	975.8	994.0	1006.6
10°	909.7	929.1	945.0	974.7	991.8
12.5°	864.1	886.9	909.7	949.6	975.8
15°	813.9	840.2	870.9	923.4	954.2
17.5°	762.6	788.9	828.8	889.2	927.9
20°	707.9	736.4	782.0	849.3	897.2
22.5°	650.9	681.7	731.9	808.2	865.2
25°	593.9	625.8	681.7	767.2	829.9
27.5°	536.9	567.7	628.1	723.9	792.3
30°	478.8	510.7	576.8	677.1	755.8
32.5°	422.9	452.6	523.2	632.7	715.9
35°	360.2	394.4	469.7	587.1	677.1
37.5°	306.7	337.4	418.4	541.5	638.4
40°	245.1	279.3	365.9	497.0	598.5
42.5°	188.1	222.3	315.8	452.6	560.9
45°	136.8	169.9	266.8	411.5	523.2
47.5°	103.7	123.1	218.9	371.6	481.1
50°	88.9	94.6	175.6	328.3	435.5
52.5°	78.7	80.9	136.8	285.0	389.9
55°	67.3	69.5	106.0	241.7	343.1
57.5°	57.0	58.1	85.5	200.6	293.0
60°	47.9	49.0	75.2	160.7	241.7
62.5°	39.9	41.0	67.3	124.3	192.7
65°	31.9	34.2	57.0	91.2	147.1
67.5°	26.2	30.8	47.9	63.8	102.6
70°	21.7	29.6	38.8	44.5	62.7
72.5°	18.2	27.4	33.1	31.9	30.8
75°	14.8	26.2	27.4	25.1	23.9
77.5°	12.5	22.8	22.8	20.5	19.4
80°	10.3	18.2	18.2	18.2	16.0
82.5°	9.1	14.8	16.0	16.0	12.5
85°	6.8	12.5	13.7	13.7	9.1
87.5°	4.6	11.4	12.5	11.4	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)