

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: P1060299

Luminaire Tested: S124RDR-S1020D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060299  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D950-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

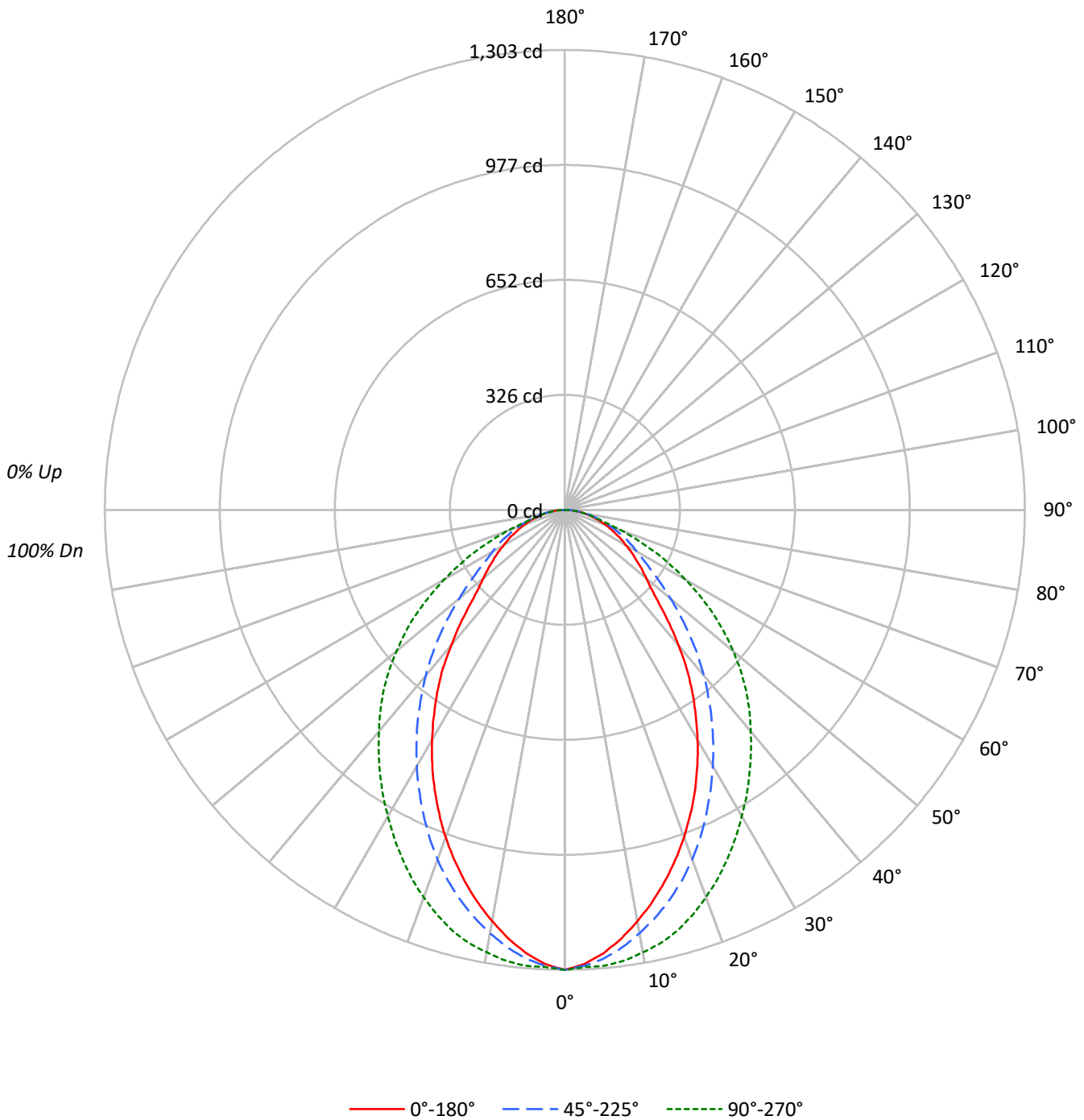
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2391.5 lumens  
Efficiency: N/A  
Efficacy: 68.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				65
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				57
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				31

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

	0°	45°	90°
0°	11223	11223	11223
5°	10897	11026	11206
10°	10348	10650	11134
15°	9727	10200	11002
20°	9047	9660	10707
25°	8296	9019	10356
30°	7477	8337	9966
35°	6620	7627	9590
40°	5627	6884	9205
45°	4607	6082	8849
50°	4032	5222	8329
55°	3705	4502	7706
60°	3436	4052	6794
65°	3219	3806	5687
70°	3021	3485	4268
75°	2838	3184	3107
80°	2633	2916	2633
85°	2391	2845	2282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8849 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.4	5.0
10°-20°	324.1	13.6
20°-30°	443.0	18.5
30°-40°	465.6	19.5
40°-50°	404.0	16.9
50°-60°	304.7	12.7
60°-70°	197.5	8.3
70°-80°	101.4	4.2
80°-90°	30.7	1.3
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°	887.5	37.1
0°-40°	1353.1	56.6
0°-60°	2061.8	86.2
0°-90°	2391.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2391.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1261	1278	1276	1286	1296	118
15°	1091	1118	1144	1196	1234	306
25°	873	904	949	1022	1090	400
35°	630	664	726	822	912	392
45°	378	414	499	624	727	298
55°	247	254	300	426	513	222
65°	158	162	187	226	279	157
75°	85	96	96	97	93	91
85°	24	30	29	28	23	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1303.3	1303.3	1303.3	1303.3	1303.3
2.5°	1288.3	1304.5	1292.9	1295.2	1296.4
5°	1260.6	1277.9	1275.6	1286.0	1296.4
7.5°	1224.9	1245.6	1250.3	1271.0	1288.3
10°	1183.4	1206.4	1218.0	1251.4	1273.3
12.5°	1139.5	1162.6	1183.4	1226.0	1257.2
15°	1091.1	1117.6	1144.1	1196.0	1234.1
17.5°	1040.3	1068.0	1101.5	1158.0	1203.0
20°	987.3	1015.0	1054.2	1115.3	1168.4
22.5°	930.8	961.9	1003.4	1069.2	1131.5
25°	873.1	904.2	949.2	1021.9	1089.9
27.5°	813.1	845.4	893.9	974.6	1047.3
30°	752.0	786.6	838.5	923.9	1002.3
32.5°	689.7	726.6	782.0	873.1	958.5
35°	629.7	664.3	725.5	822.4	912.3
37.5°	567.5	602.1	667.8	772.8	866.2
40°	500.6	538.6	612.4	720.9	818.9
42.5°	438.3	476.3	555.9	671.3	773.9
45°	378.3	414.1	499.4	624.0	726.6
47.5°	332.2	357.5	442.9	577.8	675.9
50°	301.0	312.6	389.8	527.1	621.7
52.5°	273.3	282.6	341.4	476.3	568.6
55°	246.8	253.7	299.9	425.6	513.3
57.5°	223.8	227.2	263.0	374.8	453.3
60°	199.5	204.1	235.3	322.9	394.5
62.5°	179.9	182.2	211.1	273.3	335.6
65°	158.0	161.5	186.8	226.1	279.1
67.5°	138.4	144.2	161.5	184.5	220.3
70°	120.0	128.0	138.4	149.9	169.5
72.5°	102.7	111.9	117.6	122.3	118.8
75°	85.3	95.7	95.7	96.9	93.4
77.5°	69.2	78.4	77.3	76.1	71.5
80°	53.1	61.1	58.8	57.7	53.1
82.5°	39.2	45.0	42.7	41.5	35.8
85°	24.2	30.0	28.8	27.7	23.1
87.5°	11.5	17.3	16.1	15.0	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)