

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: P1060281

Luminaire Tested: S124RDR-S1020D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060281  
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-S1020D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

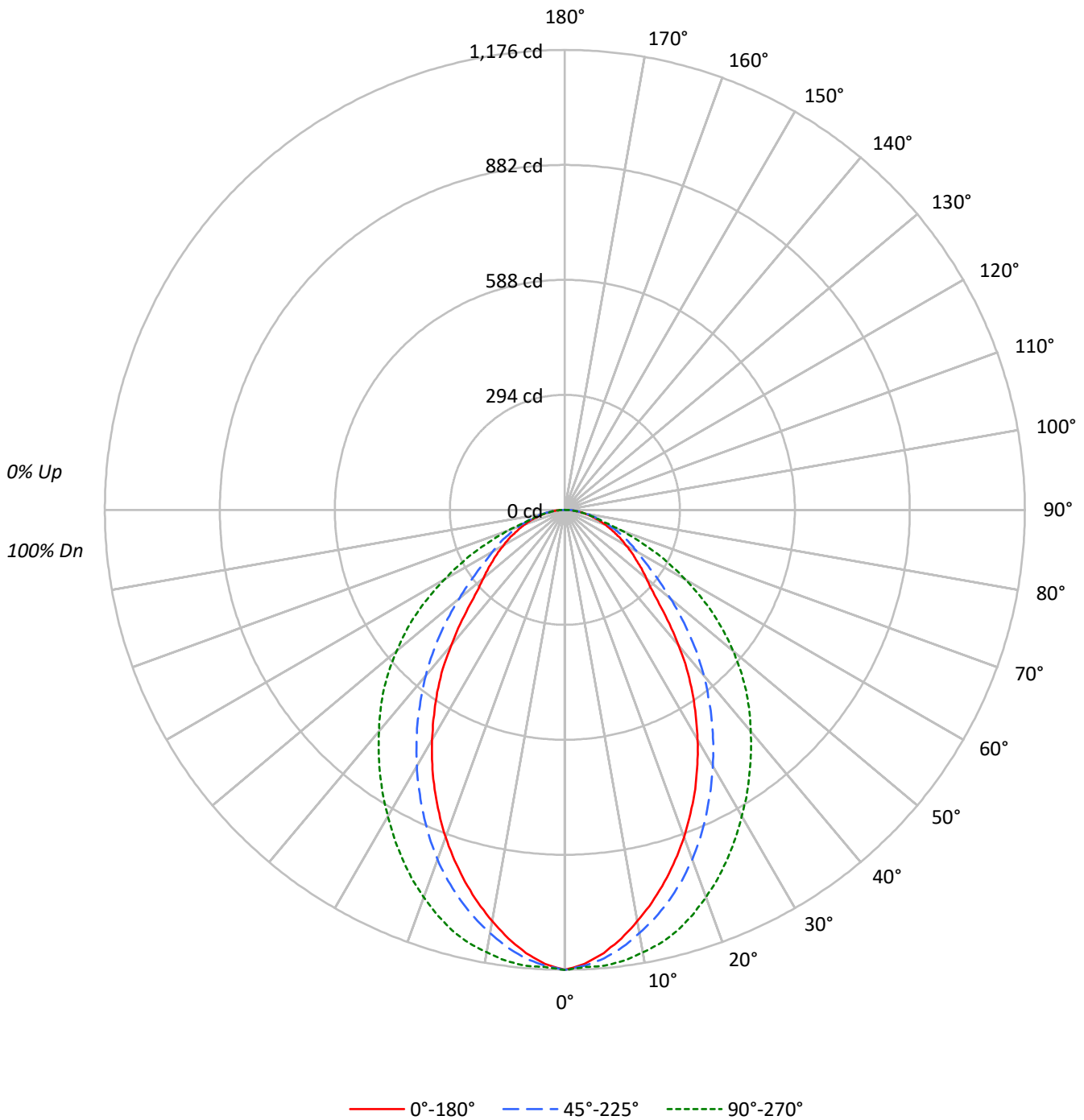
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2158.3 lumens  
Efficiency: N/A  
Efficacy: 61.7 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																		
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	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																												
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																												
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57																												
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50																												
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																												
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																												
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31																												

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

	0°	45°	90°
0°	10129	10129	10129
5°	9834	9952	10114
10°	9339	9611	10049
15°	8779	9206	9929
20°	8165	8718	9663
25°	7487	8140	9346
30°	6749	7525	8995
35°	5974	6882	8656
40°	5079	6213	8308
45°	4158	5489	7986
50°	3640	4713	7517
55°	3345	4063	6954
60°	3102	3658	6131
65°	2906	3435	5133
70°	2727	3145	3852
75°	2562	2875	2805
80°	2375	2633	2375
85°	2164	2569	2055

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7986 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.7	5.0
10°-20°	292.5	13.6
20°-30°	399.8	18.5
30°-40°	420.2	19.5
40°-50°	364.6	16.9
50°-60°	275.0	12.7
60°-70°	178.3	8.3
70°-80°	91.5	4.2
80°-90°	27.7	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°	801.0	37.1
0°-40°	1221.2	56.6
0°-60°	1860.8	86.2
0°-90°	2158.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2158.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1138	1153	1151	1161	1170	106
15°	985	1009	1033	1079	1114	276
25°	788	816	857	922	984	361
35°	568	600	655	742	823	353
45°	341	374	451	563	656	269
55°	223	229	271	384	463	200
65°	143	146	169	204	252	142
75°	77	86	86	87	84	82
85°	22	27	26	25	21	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1176.3	1176.3	1176.3	1176.3	1176.3
2.5°	1162.7	1177.3	1166.9	1169.0	1170.0
5°	1137.7	1153.4	1151.3	1160.6	1170.0
7.5°	1105.5	1124.2	1128.4	1147.1	1162.7
10°	1068.0	1088.8	1099.2	1129.4	1149.2
12.5°	1028.4	1049.3	1068.0	1106.5	1134.6
15°	984.7	1008.7	1032.6	1079.4	1113.8
17.5°	938.9	963.9	994.1	1045.1	1085.7
20°	891.0	916.0	951.4	1006.6	1054.5
22.5°	840.0	868.1	905.6	964.9	1021.2
25°	788.0	816.1	856.7	922.3	983.7
27.5°	733.9	763.0	806.7	879.6	945.2
30°	678.7	709.9	756.8	833.8	904.6
32.5°	622.5	655.8	705.8	788.0	865.0
35°	568.3	599.6	654.7	742.2	823.4
37.5°	512.1	543.4	602.7	697.4	781.7
40°	451.8	486.1	552.7	650.6	739.1
42.5°	395.6	429.9	501.7	605.8	698.5
45°	341.4	373.7	450.7	563.1	655.8
47.5°	299.8	322.7	399.7	521.5	610.0
50°	271.7	282.1	351.8	475.7	561.1
52.5°	246.7	255.0	308.1	429.9	513.2
55°	222.8	229.0	270.6	384.1	463.2
57.5°	201.9	205.1	237.3	338.3	409.1
60°	180.1	184.2	212.4	291.5	356.0
62.5°	162.4	164.5	190.5	246.7	302.9
65°	142.6	145.7	168.6	204.0	251.9
67.5°	124.9	130.1	145.7	166.5	198.8
70°	108.3	115.5	124.9	135.3	153.0
72.5°	92.6	101.0	106.2	110.3	107.2
75°	77.0	86.4	86.4	87.4	84.3
77.5°	62.5	70.8	69.7	68.7	64.5
80°	47.9	55.2	53.1	52.0	47.9
82.5°	35.4	40.6	38.5	37.5	32.3
85°	21.9	27.1	26.0	25.0	20.8
87.5°	10.4	15.6	14.6	13.5	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)