

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: P1061782

Luminaire Tested: S125RDR-S850D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061782  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-S850D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

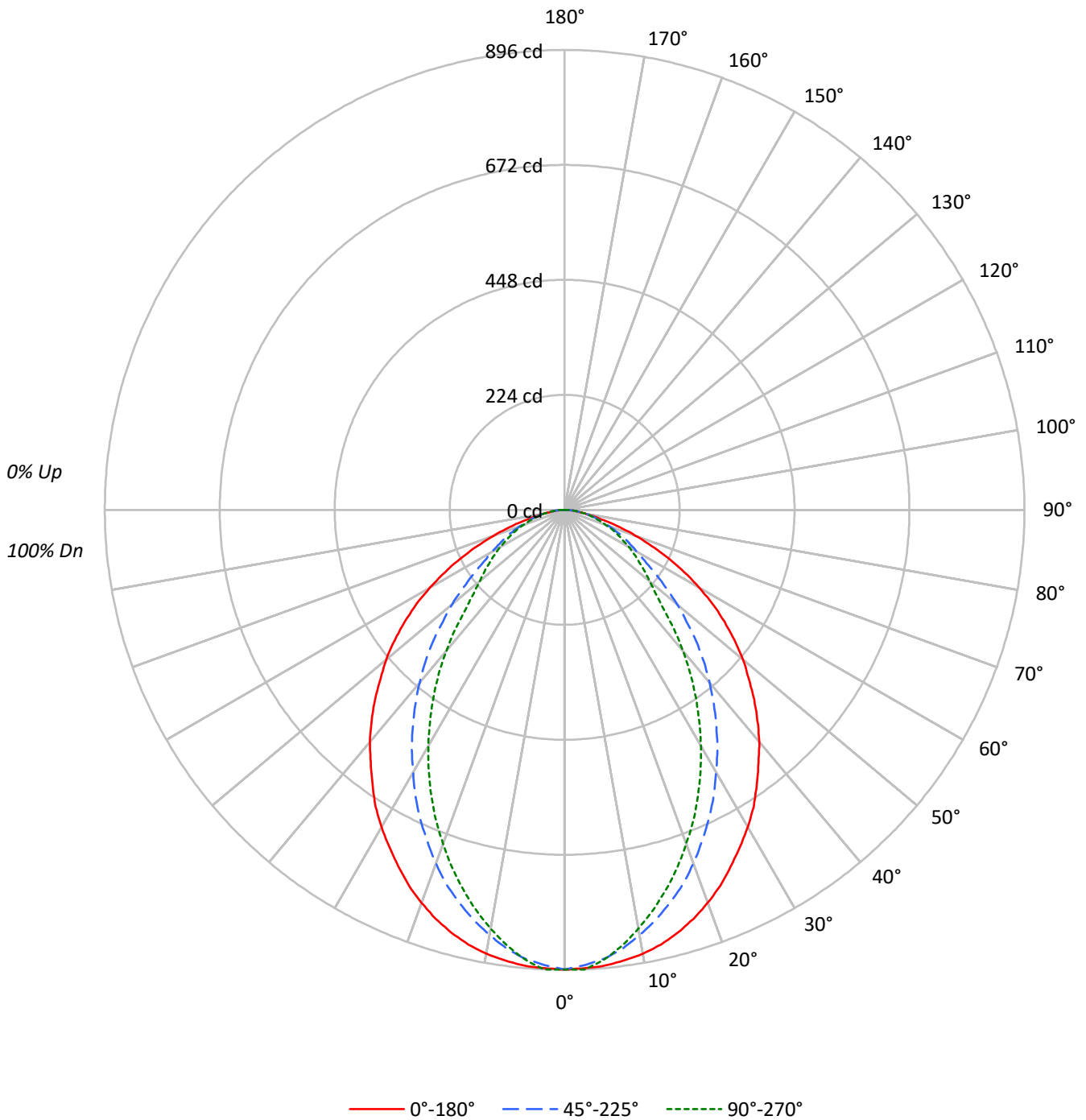
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1696.5 lumens  
Efficiency: N/A  
Efficacy: 65.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 25.8  
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

TEST NUMBER: P1061782

CATALOG NUMBER: S125RDR-S850D840-X4F0-XX-UDD-WVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1061782

CATALOG NUMBER: S125RDR-S850D840-X4F0-XX-UDD-WVL-B

**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				
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	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50				
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45				
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40				
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36				
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30				

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

	0°	45°	90°
0°	6166	6166	6166
5°	6163	6069	6082
10°	6139	5881	5792
15°	6079	5649	5455
20°	5971	5372	5073
25°	5821	5053	4668
30°	5674	4692	4221
35°	5484	4332	3743
40°	5305	3950	3225
45°	5085	3532	2642
50°	4864	3062	2313
55°	4564	2557	2136
60°	4164	2236	1995
65°	3643	2043	1854
70°	2955	1840	1723
75°	2120	1681	1604
80°	1467	1503	1503
85°	1074	1303	1382

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5085 cd/sqm



TEST NUMBER: P1061782

CATALOG NUMBER: S125RDR-S850D840-X4F0-XX-UDD-WVL-B

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.3	4.9
10°-20°	225.2	13.3
20°-30°	311.3	18.3
30°-40°	331.6	19.5
40°-50°	291.3	17.2
50°-60°	220.9	13.0
60°-70°	143.4	8.5
70°-80°	71.1	4.2
80°-90°	18.6	1.1
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°	619.8	36.5
0°-40°	951.3	56.1
0°-60°	1463.5	86.3
0°-90°	1696.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1696.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	892	890	878	881	880	85
15°	853	833	792	774	765	240
25°	766	724	665	631	614	353
35°	652	592	515	469	445	408
45°	522	449	363	298	271	403
55°	380	305	213	184	178	339
65°	224	166	125	116	114	221
75°	80	70	63	61	60	89
85°	14	16	16	16	18	17
90°	0	0	0	0	0	



TEST NUMBER: P1061782

CATALOG NUMBER: S125RDR-S850D840-X4F0-XX-UDD-WVL-B

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	895.6	895.6	895.6	895.6	895.6
2.5°	893.6	895.6	887.8	894.6	896.5
5°	891.7	889.7	878.1	881.0	880.0
7.5°	885.8	881.9	862.5	860.6	856.7
10°	878.1	868.3	841.1	834.3	828.5
12.5°	867.4	851.8	818.7	805.1	798.3
15°	852.8	833.3	792.5	774.0	765.3
17.5°	835.3	808.0	765.3	740.0	730.3
20°	814.9	782.8	733.2	704.0	692.3
22.5°	792.5	754.6	699.1	668.0	655.4
25°	766.2	724.4	665.1	631.1	614.5
27.5°	740.0	693.3	629.1	591.2	573.7
30°	713.7	660.2	590.2	549.4	530.9
32.5°	685.5	626.2	554.3	509.5	488.1
35°	652.5	592.2	515.4	468.7	445.3
37.5°	620.4	556.2	477.4	424.9	402.6
40°	590.2	522.2	439.5	382.1	358.8
42.5°	556.2	486.2	401.6	341.3	315.0
45°	522.2	449.2	362.7	297.5	271.3
47.5°	486.2	414.2	321.9	257.7	240.2
50°	454.1	378.3	285.9	227.5	215.9
52.5°	417.1	343.2	248.9	204.2	196.4
55°	380.2	305.3	213.0	183.8	177.9
57.5°	342.3	271.3	184.8	166.3	160.4
60°	302.4	236.3	162.4	147.8	144.9
62.5°	262.5	200.3	142.9	132.2	128.4
65°	223.6	166.3	125.4	115.7	113.8
67.5°	183.8	135.2	107.9	101.1	100.2
70°	146.8	109.9	91.4	87.5	85.6
72.5°	112.8	87.5	76.8	73.9	72.9
75°	79.7	70.0	63.2	61.3	60.3
77.5°	53.5	53.5	50.6	48.6	49.6
80°	37.0	38.9	37.9	37.9	37.9
82.5°	24.3	26.3	27.2	27.2	27.2
85°	13.6	15.6	16.5	16.5	17.5
87.5°	4.9	5.8	6.8	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)