

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: P1175430

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1175430  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

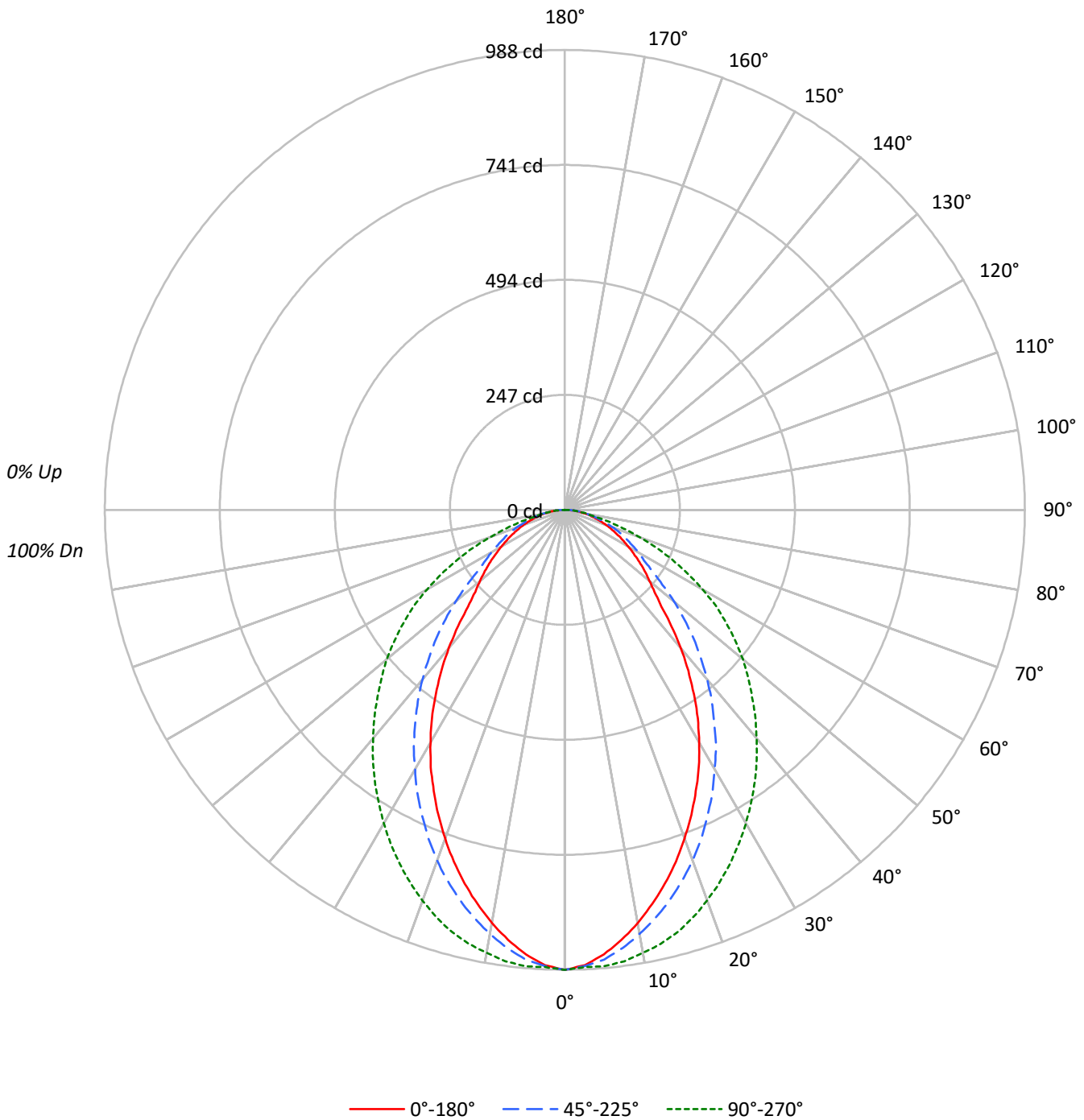
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1861.5 lumens  
Efficiency: N/A  
Efficacy: 79.2 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74				
3	93	84	76	71	91	82	75	70	79	73	69	77	72	68	74	70	66	64				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30				

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

	0°	45°	90°
0°	6803	6803	6803
5°	6626	6701	6800
10°	6304	6468	6756
15°	5925	6194	6690
20°	5507	5876	6545
25°	5060	5506	6372
30°	4588	5115	6182
35°	4061	4703	5979
40°	3483	4275	5760
45°	2859	3806	5538
50°	2543	3270	5346
55°	2346	2739	5075
60°	2161	2495	4701
65°	2009	2351	4154
70°	1874	2194	3394
75°	1764	2030	2543
80°	1661	1864	1828
85°	1525	1856	1525

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5538 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.5	4.9
10°-20°	246.6	13.2
20°-30°	339.2	18.2
30°-40°	359.8	19.3
40°-50°	314.9	16.9
50°-60°	241.6	13.0
60°-70°	161.0	8.6
70°-80°	82.5	4.4
80°-90°	24.5	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°	677.2	36.4
0°-40°	1037.0	55.7
0°-60°	1593.6	85.6
0°-90°	1861.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1861.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	959	971	970	976	984	90
15°	831	850	869	910	939	233
25°	666	689	725	786	839	306
35°	483	506	560	642	711	301
45°	294	318	391	488	569	232
55°	195	200	228	339	423	175
65°	123	124	144	190	255	123
75°	66	70	76	80	96	70
85°	19	22	24	23	19	22
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	988.1	988.1	988.1	988.1	988.1
2.5°	978.9	988.9	981.4	982.2	983.1
5°	958.7	971.3	969.6	976.4	983.9
7.5°	931.9	945.3	949.5	966.3	978.0
10°	901.7	916.8	925.2	950.4	966.3
12.5°	867.3	884.9	898.3	931.1	954.5
15°	831.2	850.5	869.0	910.1	938.6
17.5°	792.7	812.0	836.3	883.2	917.6
20°	751.6	772.5	801.9	852.2	893.3
22.5°	709.6	731.4	765.0	820.3	867.3
25°	666.0	688.6	724.7	785.9	838.8
27.5°	623.2	644.2	686.1	751.6	809.4
30°	577.1	598.9	643.4	715.5	777.6
32.5°	531.0	552.8	603.9	679.4	744.8
35°	483.1	505.8	559.5	641.7	711.3
37.5°	435.3	458.8	518.4	603.1	676.9
40°	387.5	412.7	475.6	564.5	640.8
42.5°	338.9	365.7	432.0	526.8	605.6
45°	293.6	317.9	390.9	488.2	568.7
47.5°	260.9	275.1	347.3	448.8	533.5
50°	237.4	244.1	305.3	411.0	499.1
52.5°	216.4	220.6	264.2	375.8	461.3
55°	195.4	199.6	228.2	338.9	422.8
57.5°	175.3	177.8	201.3	302.0	384.2
60°	156.9	158.5	181.2	265.1	341.4
62.5°	140.1	140.9	161.9	227.3	298.6
65°	123.3	124.1	144.3	189.6	255.0
67.5°	108.2	108.2	127.5	155.2	213.1
70°	93.1	93.1	109.0	125.8	168.6
72.5°	79.7	81.4	92.3	101.5	131.7
75°	66.3	70.5	76.3	80.5	95.6
77.5°	53.7	58.7	61.2	62.9	63.7
80°	41.9	45.3	47.0	47.8	46.1
82.5°	31.0	33.6	34.4	34.4	31.9
85°	19.3	21.8	23.5	22.6	19.3
87.5°	9.2	12.6	13.4	11.7	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)