

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: P1175428

Luminaire Tested: S125RDR-H850D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1175428  
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-H850D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

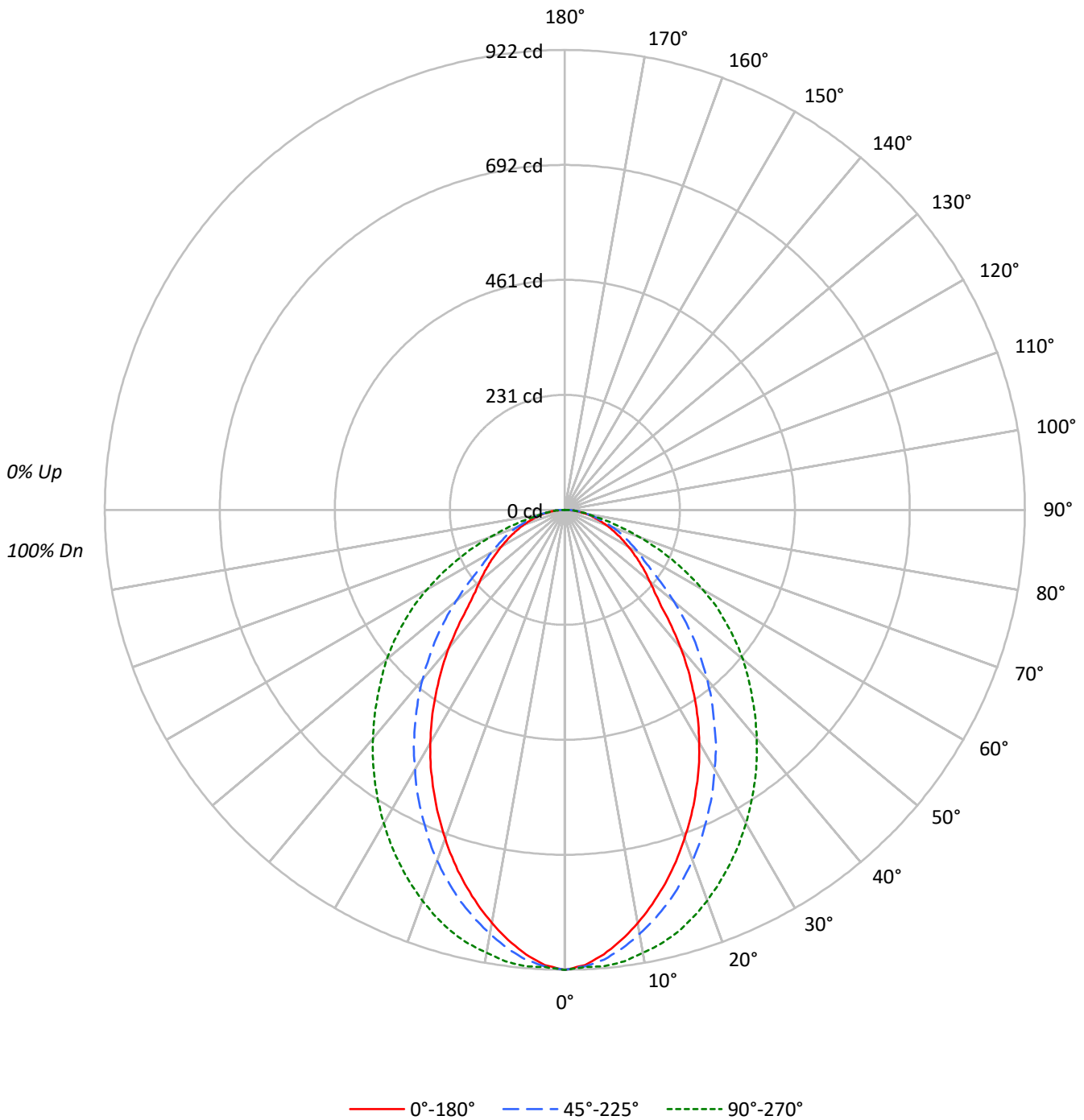
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1737.4 lumens  
Efficiency: N/A  
Efficacy: 73.9 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

TEST NUMBER: P1175428

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1175428

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-W

**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	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°	6350	6350	6350
5°	6184	6255	6347
10°	5884	6037	6306
15°	5530	5782	6244
20°	5140	5484	6109
25°	4722	5139	5948
30°	4282	4774	5770
35°	3790	4389	5580
40°	3251	3990	5376
45°	2668	3552	5169
50°	2374	3053	4989
55°	2190	2556	4737
60°	2016	2329	4387
65°	1875	2195	3877
70°	1749	2049	3169
75°	1644	1894	2373
80°	1550	1737	1709
85°	1422	1730	1422

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5169 cd/sqm



TEST NUMBER: P1175428

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.4	4.9
10°-20°	230.1	13.2
20°-30°	316.6	18.2
30°-40°	335.8	19.3
40°-50°	293.9	16.9
50°-60°	225.5	13.0
60°-70°	150.2	8.6
70°-80°	77.0	4.4
80°-90°	22.9	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°	632.1	36.4
0°-40°	967.9	55.7
0°-60°	1487.3	85.6
0°-90°	1737.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1737.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	922	922	922	922	922	
5°	895	907	905	911	918	84
15°	776	794	811	849	876	217
25°	622	643	676	734	783	285
35°	451	472	522	599	664	281
45°	274	297	365	456	531	216
55°	182	186	213	316	395	164
65°	115	116	135	177	238	115
75°	62	66	71	75	89	66
85°	18	20	22	21	18	20
90°	0	0	0	0	0	



TEST NUMBER: P1175428

CATALOG NUMBER: S125RDR-H850D830-X4F0-XX-UDD-WVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	922.2	922.2	922.2	922.2	922.2
2.5°	913.6	923.0	916.0	916.7	917.5
5°	894.8	906.6	905.0	911.3	918.3
7.5°	869.8	882.3	886.2	901.9	912.8
10°	841.6	855.7	863.5	887.0	901.9
12.5°	809.5	825.9	838.5	869.0	890.9
15°	775.8	793.8	811.1	849.4	876.0
17.5°	739.8	757.8	780.5	824.4	856.5
20°	701.5	721.0	748.4	795.4	833.8
22.5°	662.3	682.7	714.0	765.7	809.5
25°	621.6	642.7	676.4	733.6	782.9
27.5°	581.7	601.2	640.4	701.5	755.5
30°	538.6	559.0	600.5	667.8	725.7
32.5°	495.6	515.9	563.7	634.1	695.2
35°	450.9	472.1	522.2	598.9	663.9
37.5°	406.3	428.2	483.8	562.9	631.8
40°	361.7	385.2	443.9	526.9	598.1
42.5°	316.3	341.3	403.2	491.6	565.2
45°	274.0	296.7	364.8	455.6	530.8
47.5°	243.5	256.8	324.1	418.8	497.9
50°	221.6	227.8	285.0	383.6	465.8
52.5°	202.0	205.9	246.6	350.7	430.6
55°	182.4	186.3	212.9	316.3	394.6
57.5°	163.6	166.0	187.9	281.8	358.6
60°	146.4	148.0	169.1	247.4	318.6
62.5°	130.7	131.5	151.1	212.2	278.7
65°	115.1	115.9	134.7	176.9	238.0
67.5°	101.0	101.0	119.0	144.8	198.8
70°	86.9	86.9	101.8	117.4	157.4
72.5°	74.4	75.9	86.1	94.7	122.9
75°	61.8	65.8	71.2	75.2	89.2
77.5°	50.1	54.8	57.1	58.7	59.5
80°	39.1	42.3	43.8	44.6	43.1
82.5°	29.0	31.3	32.1	32.1	29.7
85°	18.0	20.4	21.9	21.1	18.0
87.5°	8.6	11.7	12.5	11.0	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)