

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P1062205

Luminaire Tested: S125RDR-H850D927-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062205
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-H850D927-X4F0-XX-UDD-WVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

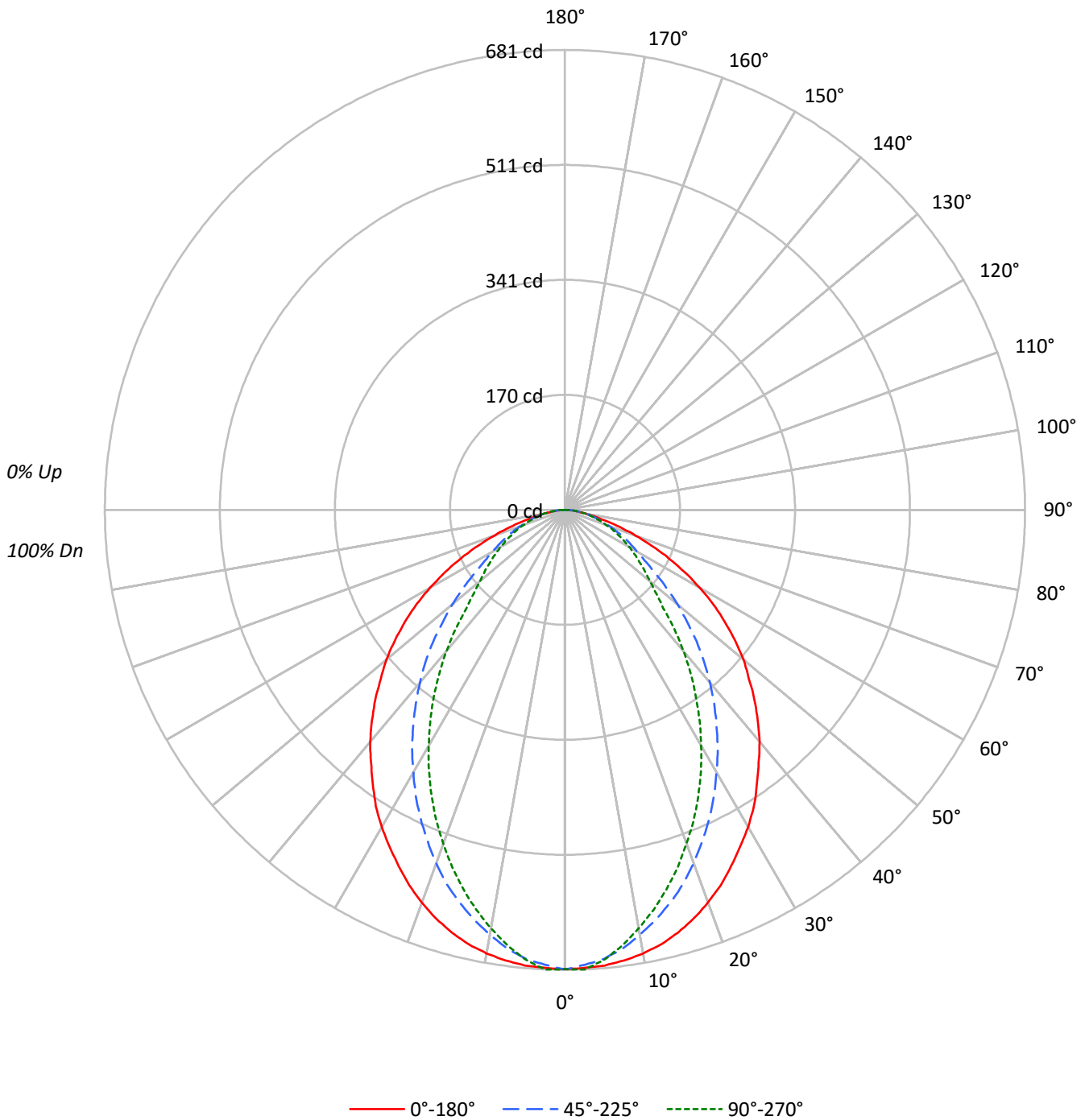
Lumens per Lamp: N/A
Luminaire Lumens: 1288.7 lumens
Efficiency: N/A
Efficacy: 54.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1062205

CATALOG NUMBER: S125RDR-H850D927-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1062205

CATALOG NUMBER: S125RDR-H850D927-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				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	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57				57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50				50
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45				45
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40				40
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36				36
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33				33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30				30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4684	4684	4684
5°	4681	4610	4620
10°	4663	4467	4400
15°	4618	4291	4144
20°	4535	4080	3853
25°	4422	3838	3546
30°	4311	3565	3206
35°	4166	3291	2844
40°	4030	3001	2450
45°	3863	2683	2007
50°	3694	2327	1757
55°	3467	1942	1623
60°	3163	1699	1516
65°	2768	1553	1408
70°	2245	1397	1309
75°	1612	1277	1218
80°	1114	1142	1142
85°	814	995	1051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3863 cd/sqm



TEST NUMBER: P1062205

CATALOG NUMBER: S125RDR-H850D927-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	4.9
10°-20°	171.1	13.3
20°-30°	236.5	18.3
30°-40°	251.9	19.5
40°-50°	221.3	17.2
50°-60°	167.8	13.0
60°-70°	108.9	8.5
70°-80°	54.0	4.2
80°-90°	14.1	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°	470.8	36.5
0°-40°	722.7	56.1
0°-60°	1111.7	86.3
0°-90°	1288.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1288.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	677	676	667	669	668	64
15°	648	633	602	588	581	182
25°	582	550	505	479	467	268
35°	496	450	392	356	338	310
45°	397	341	276	226	206	306
55°	289	232	162	140	135	258
65°	170	126	95	88	86	168
75°	61	53	48	46	46	68
85°	10	12	13	13	13	13
90°	0	0	0	0	0	



TEST NUMBER: P1062205

CATALOG NUMBER: S125RDR-H850D927-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.3	680.3	680.3	680.3	680.3
2.5°	678.8	680.3	674.4	679.6	681.0
5°	677.3	675.9	667.0	669.2	668.5
7.5°	672.9	670.0	655.2	653.7	650.7
10°	667.0	659.6	638.9	633.8	629.3
12.5°	658.9	647.1	621.9	611.6	606.4
15°	647.8	633.0	602.0	588.0	581.3
17.5°	634.5	613.8	581.3	562.1	554.7
20°	619.0	594.6	556.9	534.8	525.9
22.5°	602.0	573.2	531.1	507.4	497.8
25°	582.1	550.3	505.2	479.4	466.8
27.5°	562.1	526.7	477.9	449.1	435.8
30°	542.2	501.5	448.4	417.3	403.3
32.5°	520.7	475.7	421.0	387.1	370.8
35°	495.6	449.8	391.5	356.0	338.3
37.5°	471.3	422.5	362.7	322.8	305.8
40°	448.4	396.7	333.9	290.3	272.6
42.5°	422.5	369.3	305.1	259.3	239.3
45°	396.7	341.3	275.5	226.0	206.1
47.5°	369.3	314.7	244.5	195.7	182.4
50°	344.9	287.3	217.2	172.8	164.0
52.5°	316.9	260.7	189.1	155.1	149.2
55°	288.8	231.9	161.8	139.6	135.2
57.5°	260.0	206.1	140.3	126.3	121.9
60°	229.7	179.5	123.4	112.3	110.1
62.5°	199.4	152.2	108.6	100.5	97.5
65°	169.9	126.3	95.3	87.9	86.4
67.5°	139.6	102.7	82.0	76.8	76.1
70°	111.5	83.5	69.4	66.5	65.0
72.5°	85.7	66.5	58.4	56.1	55.4
75°	60.6	53.2	48.0	46.5	45.8
77.5°	40.6	40.6	38.4	36.9	37.7
80°	28.1	29.5	28.8	28.8	28.8
82.5°	18.5	19.9	20.7	20.7	20.7
85°	10.3	11.8	12.6	12.6	13.3
87.5°	3.7	4.4	5.2	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062205
 CATALOG NUMBER: S125RDR-H850D927-X4F0-XX-UDD-WVL-B

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.92	17.41	16.28	17.72	18.04	12.16	13.65	12.52	13.97	14.28
	3H	17.23	18.57	17.61	18.89	19.26	13.74	15.08	14.12	15.41	15.77
	4H	17.60	18.85	18.00	19.20	19.58	14.35	15.60	14.75	15.95	16.33
	6H	17.77	18.93	18.19	19.30	19.69	14.82	15.97	15.23	16.34	16.73
	8H	17.81	18.91	18.24	19.30	19.70	14.98	16.08	15.40	16.47	16.87
	12H	17.82	18.88	18.26	19.26	19.69	15.09	16.14	15.52	16.52	16.95
4H	2H	16.03	17.28	16.43	17.63	18.01	12.82	14.07	13.22	14.42	14.80
	3H	17.52	18.56	17.93	18.96	19.36	14.60	15.64	15.01	16.04	16.44
	4H	17.99	18.93	18.43	19.34	19.78	15.32	16.25	15.75	16.67	17.11
	6H	18.28	19.09	18.74	19.53	19.99	15.91	16.72	16.37	17.16	17.62
	8H	18.35	19.11	18.81	19.55	20.02	16.11	16.87	16.58	17.32	17.78
	12H	18.39	19.06	18.87	19.54	20.01	16.27	16.95	16.75	17.42	17.90
8H	4H	18.08	18.83	18.54	19.28	19.75	15.63	16.39	16.10	16.83	17.30
	6H	18.44	19.06	18.94	19.56	20.03	16.34	16.96	16.84	17.45	17.93
	8H	18.56	19.12	19.07	19.63	20.11	16.62	17.18	17.13	17.69	18.18
	12H	18.64	19.14	19.15	19.63	20.20	16.85	17.34	17.36	17.84	18.40
12H	4H	18.07	18.75	18.55	19.22	19.70	15.66	16.33	16.14	16.81	17.28
	6H	18.44	19.00	18.96	19.51	20.00	16.39	16.95	16.90	17.46	17.95
	8H	18.60	19.10	19.11	19.59	20.15	16.73	17.22	17.24	17.71	18.28