

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: P1062181

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062181
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

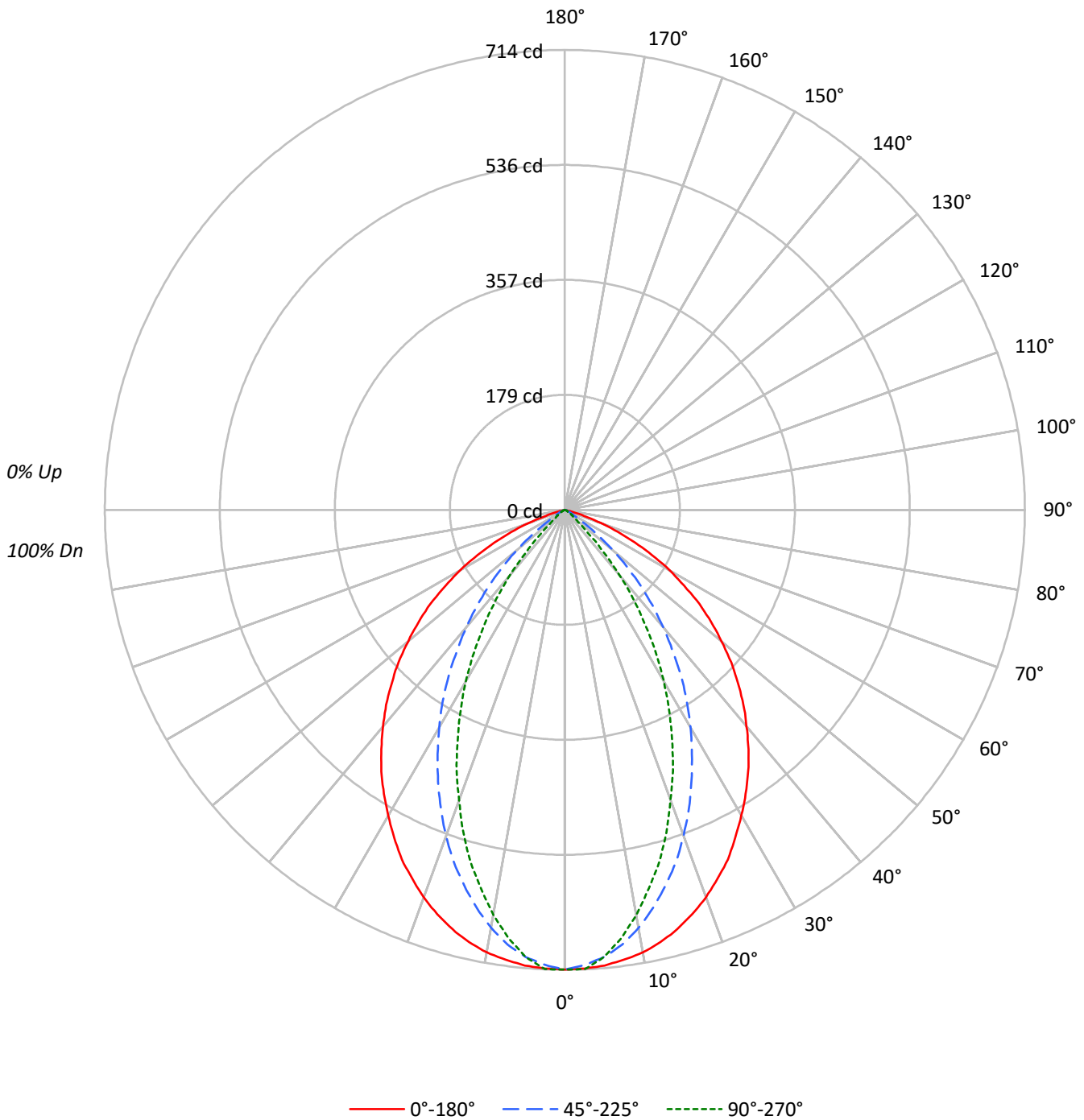
Lumens per Lamp: N/A
Luminaire Lumens: 922.0 lumens
Efficiency: N/A
Efficacy: 39.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062181

CATALOG NUMBER: S125RDR-H850D840-X4F0-XX-UDD-BVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1062181

CATALOG NUMBER: S125RDR-H850D840-X4F0-XX-UDD-BVL-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	112	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91				91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73				73
4	92	83	76	71	90	82	75	70	79	74	70	77	72	69	75	71	68	66				66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60				60
6	81	70	63	58	79	69	62	57	67	61	57	66	61	57	65	60	56	54				54
7	76	65	58	53	74	64	57	52	63	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4914	4914	4914
5°	4907	4816	4816
10°	4878	4608	4463
15°	4806	4303	4034
20°	4692	3946	3512
25°	4549	3533	2990
30°	4357	3099	2441
35°	4171	2643	1828
40°	3944	2133	1185
45°	3695	1613	513
50°	3399	1028	192
55°	3063	453	136
60°	2593	194	91
65°	1963	122	46
70°	1194	56	18
75°	250	24	24
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3695 cd/sqm



TEST NUMBER: P1062181

CATALOG NUMBER: S125RDR-H850D840-X4F0-XX-UDD-BVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	7.1
10°-20°	171.5	18.6
20°-30°	220.2	23.9
30°-40°	207.3	22.5
40°-50°	144.9	15.7
50°-60°	77.4	8.4
60°-70°	30.9	3.3
70°-80°	4.0	0.4
80°-90°	0.0	0.0
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°	457.5	49.6
0°-40°	664.8	72.1
0°-60°	887.2	96.2
0°-90°	922.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	922.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	714	714	714	714	714	
5°	710	708	697	699	697	67
15°	674	652	604	575	566	190
25°	599	546	465	414	394	275
35°	496	417	314	243	218	310
45°	380	284	166	80	53	293
55°	255	156	38	13	11	226
65°	120	48	8	4	3	120
75°	9	3	1	1	1	18
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P1062181

CATALOG NUMBER: S125RDR-H850D840-X4F0-XX-UDD-BVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	713.7	713.7	713.7	713.7	713.7
2.5°	712.8	713.7	707.1	712.8	713.7
5°	710.0	708.1	696.8	698.7	696.8
7.5°	704.3	699.6	680.8	674.2	670.4
10°	697.7	687.4	659.1	645.0	638.4
12.5°	687.4	672.3	632.7	611.1	601.7
15°	674.2	652.5	603.6	575.3	565.9
17.5°	658.2	629.9	573.4	538.6	524.5
20°	640.3	602.6	538.6	497.2	479.3
22.5°	619.6	576.3	502.8	456.7	438.8
25°	598.8	546.1	465.1	414.3	393.6
27.5°	573.4	515.0	427.5	372.9	350.3
30°	548.0	484.0	389.8	330.5	307.0
32.5°	522.6	451.0	352.2	286.2	262.7
35°	496.2	417.1	314.5	242.9	217.5
37.5°	468.0	383.2	274.0	201.5	175.1
40°	438.8	350.3	237.3	161.0	131.8
42.5°	410.5	317.3	200.6	121.5	89.5
45°	379.5	284.4	165.7	80.0	52.7
47.5°	350.3	252.3	129.9	46.1	27.3
50°	317.3	219.4	96.0	24.5	17.9
52.5°	286.2	187.4	64.0	16.0	14.1
55°	255.2	156.3	37.7	13.2	11.3
57.5°	219.4	126.2	20.7	10.4	8.5
60°	188.3	98.9	14.1	7.5	6.6
62.5°	152.5	72.5	10.4	5.6	4.7
65°	120.5	48.0	7.5	3.8	2.8
67.5°	89.5	28.2	4.7	1.9	1.9
70°	59.3	15.1	2.8	0.9	0.9
72.5°	31.1	6.6	1.9	0.9	0.9
75°	9.4	2.8	0.9	0.9	0.9
77.5°	0.0	0.9	0.0	0.0	0.9
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1062181
 CATALOG NUMBER: S125RDR-H850D840-X4F0-XX-UDD-BVL-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	14.48	15.74	14.84	16.05	16.37	0.00	0.00	0.00	0.00	0.00
	3H	15.06	16.17	15.44	16.50	16.87	0.00	0.00	0.00	0.00	0.00
	4H	15.02	16.06	15.43	16.41	16.79	0.00	0.00	0.00	0.00	0.00
	6H	14.94	15.88	15.35	16.26	16.65	0.00	0.00	0.00	0.00	0.00
	8H	14.89	15.79	15.32	16.18	16.58	0.00	0.00	0.00	0.00	0.00
	12H	14.85	15.70	15.28	16.08	16.51	0.00	0.00	0.00	0.00	0.00
4H	2H	14.25	15.28	14.65	15.63	16.02	0.00	0.00	0.00	0.00	0.00
	3H	14.84	15.68	15.26	16.08	16.49	0.00	0.00	0.00	0.00	0.00
	4H	14.79	15.53	15.23	15.95	16.40	0.00	0.00	0.00	0.00	0.00
	6H	14.70	15.34	15.17	15.79	16.26	0.00	0.00	0.00	0.00	0.00
	8H	14.64	15.24	15.12	15.69	16.16	0.00	0.00	0.00	0.00	0.00
	12H	14.59	15.11	15.08	15.60	16.07	0.00	0.00	0.00	0.00	0.00
8H	4H	14.64	15.24	15.12	15.69	16.16	0.00	0.00	0.00	0.00	0.00
	6H	14.54	15.02	15.04	15.52	16.00	0.00	0.00	0.00	0.00	0.00
	8H	14.47	14.90	15.00	15.42	15.91	0.00	0.00	0.00	0.00	0.00
	12H	14.42	14.80	14.94	15.30	15.87	0.00	0.00	0.00	0.00	0.00
12H	4H	14.59	15.11	15.08	15.60	16.07	0.00	0.00	0.00	0.00	0.00
	6H	14.47	14.90	15.00	15.42	15.91	0.00	0.00	0.00	0.00	0.00
	8H	14.42	14.80	14.94	15.30	15.87	0.00	0.00	0.00	0.00	0.00