

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: P1062191

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

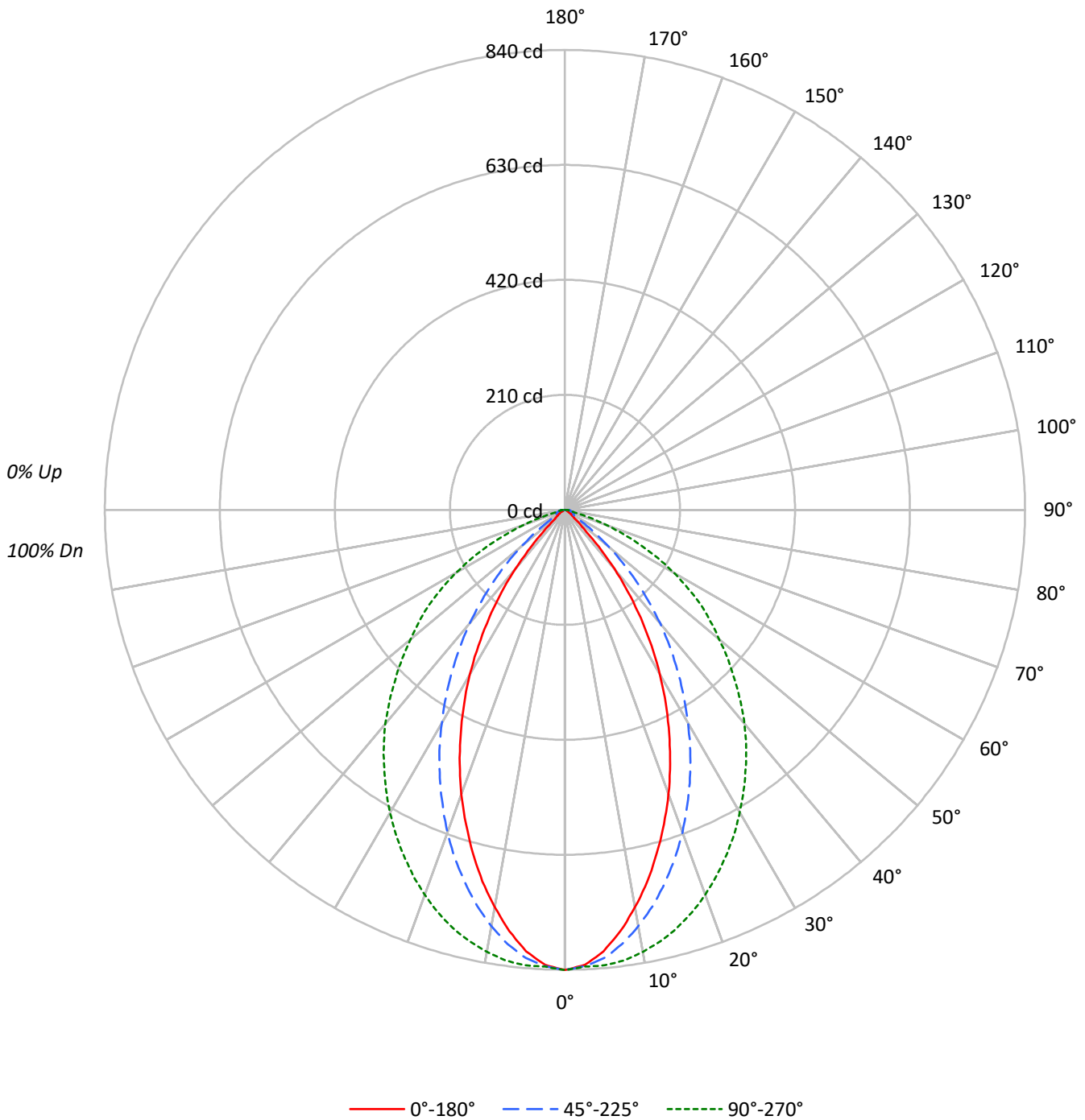
Lumens per Lamp: N/A
Luminaire Lumens: 1080.9 lumens
Efficiency: N/A
Efficacy: 46.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062191

CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-BVL-S

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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				59
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				54
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				49
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				42
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5786	5786	5786
5°	5594	5680	5773
10°	5152	5398	5731
15°	4625	5024	5636
20°	4050	4596	5483
25°	3420	4104	5291
30°	2756	3571	5077
35°	2027	3010	4836
40°	1266	2428	4586
45°	473	1774	4263
50°	222	1109	3935
55°	162	460	3640
60°	114	242	3149
65°	67	287	2496
70°	62	334	1584
75°	82	330	495
80°	123	408	369
85°	245	656	490

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4263 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	7.1
10°-20°	199.5	18.5
20°-30°	254.2	23.5
30°-40°	236.5	21.9
40°-50°	162.1	15.0
50°-60°	89.2	8.3
60°-70°	42.2	3.9
70°-80°	13.3	1.2
80°-90°	6.8	0.6
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°	530.7	49.1
0°-40°	767.2	71.0
0°-60°	1018.6	94.2
0°-90°	1080.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	809	820	822	828	835	75
15°	649	670	705	758	791	181
25°	450	478	540	627	696	206
35°	241	275	358	476	575	150
45°	49	82	182	323	438	46
55°	14	16	38	180	303	12
65°	4	5	18	66	153	5
75°	3	5	12	14	19	3
85°	3	7	8	7	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	840.4	840.4	840.4	840.4	840.4
2.5°	832.1	840.4	834.2	834.2	835.2
5°	809.3	819.7	821.8	828.0	835.2
7.5°	776.2	789.7	800.0	817.6	830.0
10°	736.9	753.5	772.1	801.1	819.7
12.5°	695.5	713.1	741.0	781.4	807.3
15°	648.9	669.6	704.8	757.6	790.7
17.5°	601.3	624.1	667.5	729.6	771.0
20°	552.7	576.5	627.2	696.5	748.3
22.5°	502.0	527.8	583.7	662.4	723.4
25°	450.2	478.2	540.2	627.2	696.5
27.5°	398.5	427.4	495.7	591.0	668.6
30°	346.7	376.7	449.2	553.7	638.6
32.5°	293.9	327.0	403.6	516.4	607.5
35°	241.1	275.3	358.1	476.1	575.4
37.5°	189.4	224.6	313.6	437.8	543.4
40°	140.8	175.9	270.1	399.5	510.2
42.5°	91.1	128.3	224.6	360.2	474.0
45°	48.6	81.8	182.2	322.9	437.8
47.5°	25.9	43.5	141.8	285.6	403.6
50°	20.7	23.8	103.5	248.4	367.4
52.5°	16.6	18.6	66.2	210.1	335.3
55°	13.5	15.5	38.3	180.1	303.2
57.5°	10.3	12.4	21.7	150.1	266.0
60°	8.3	9.3	17.6	120.1	228.7
62.5°	5.2	7.2	17.6	93.1	191.5
65°	4.1	5.2	17.6	66.2	153.2
67.5°	4.1	4.1	17.6	43.5	114.9
70°	3.1	3.1	16.6	27.9	78.7
72.5°	3.1	3.1	14.5	18.6	45.5
75°	3.1	5.2	12.4	13.5	18.6
77.5°	3.1	8.3	11.4	11.4	10.3
80°	3.1	8.3	10.3	9.3	9.3
82.5°	3.1	8.3	8.3	8.3	7.2
85°	3.1	7.2	8.3	7.2	6.2
87.5°	3.1	7.2	7.2	7.2	4.1
90°	0.0	0.0	0.0	0.0	0.0



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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	0.00	0.00	0.00	0.00	0.00	15.15	16.43	15.51	16.74	17.06
	3H	0.00	0.00	0.00	0.00	0.00	15.93	17.07	16.31	17.40	17.77
	4H	0.00	0.00	0.00	0.00	0.00	15.96	17.02	16.36	17.37	17.75
	6H	0.00	0.00	0.00	0.17	0.56	15.91	16.89	16.33	17.26	17.65
	8H	0.00	0.42	0.00	0.81	1.22	15.89	16.81	16.32	17.20	17.61
	12H	0.25	1.13	0.68	1.51	1.94	15.87	16.75	16.31	17.13	17.56
4H	2H	0.00	0.00	0.00	0.33	0.71	14.93	15.99	15.33	16.34	16.72
	3H	0.00	0.65	0.20	1.06	1.46	15.76	16.62	16.17	17.02	17.43
	4H	0.39	1.16	0.83	1.58	2.03	15.79	16.56	16.23	16.98	17.43
	6H	1.89	2.56	2.36	3.01	3.47	15.78	16.44	16.24	16.89	17.36
	8H	2.64	3.26	3.11	3.70	4.18	15.76	16.38	16.23	16.83	17.30
	12H	3.37	3.92	3.86	4.41	4.88	15.76	16.31	16.25	16.79	17.27
8H	4H	2.44	3.05	2.91	3.50	3.97	15.68	16.30	16.15	16.74	17.22
	6H	4.18	4.69	4.69	5.19	5.67	15.68	16.18	16.18	16.68	17.16
	8H	5.14	5.59	5.66	6.11	6.60	15.68	16.14	16.21	16.65	17.15
	12H	6.07	6.47	6.58	6.96	7.53	15.73	16.13	16.24	16.63	17.20
12H	4H	2.74	3.28	3.22	3.77	4.24	15.63	16.18	16.12	16.67	17.14
	6H	4.64	5.09	5.16	5.61	6.10	15.63	16.09	16.16	16.60	17.10
	8H	5.78	6.18	6.29	6.67	7.24	15.67	16.07	16.19	16.57	17.14