

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: P1062195

Luminaire Tested: S125RDR-H850D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062195
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

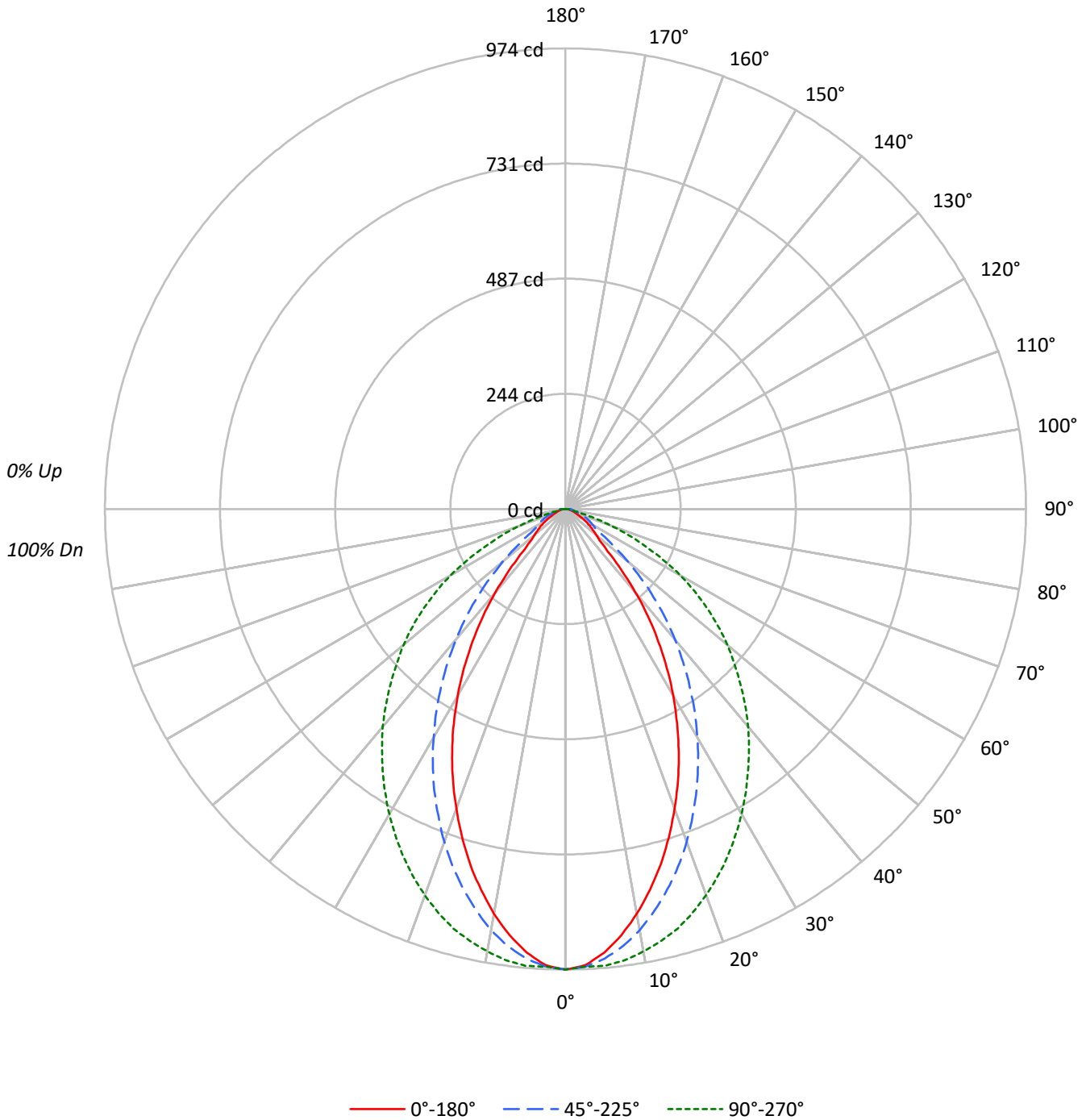
Lumens per Lamp: N/A
Luminaire Lumens: 1410.7 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062195

CATALOG NUMBER: S125RDR-H850D850-X4F0-XX-UDD-SVL-W

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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6706	6706	6706
5°	6509	6595	6703
10°	6078	6324	6643
15°	5548	5938	6544
20°	4944	5490	6370
25°	4309	4985	6164
30°	3621	4435	5925
35°	2880	3854	5664
40°	2074	3237	5405
45°	1230	2570	5090
50°	909	1830	4789
55°	771	1131	4385
60°	627	912	3863
65°	489	842	3051
70°	417	729	2041
75°	386	633	825
80°	408	658	575
85°	490	980	656

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	6.4
10°-20°	235.7	16.7
20°-30°	308.1	21.8
30°-40°	300.2	21.3
40°-50°	225.1	16.0
50°-60°	141.1	10.0
60°-70°	73.5	5.2
70°-80°	26.6	1.9
80°-90°	10.5	0.7
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°	633.6	44.9
0°-40°	933.8	66.2
0°-60°	1300.1	92.2
0°-90°	1410.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1410.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	974	974	974	974	974	
5°	942	954	954	962	970	88
15°	778	801	833	885	918	217
25°	567	598	656	745	811	259
35°	343	379	458	581	674	213
45°	126	164	264	408	523	106
55°	64	67	94	246	365	57
65°	30	32	52	99	187	31
75°	14	20	24	25	31	16
85°	6	10	12	11	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	973.9	973.9	973.9	973.9	973.9
2.5°	965.6	974.9	968.7	968.7	968.7
5°	941.8	954.2	954.2	961.5	969.8
7.5°	908.7	923.2	932.5	950.1	962.5
10°	869.4	887.0	904.6	933.5	950.1
12.5°	824.9	845.6	870.4	910.8	935.6
15°	778.3	801.1	833.1	884.9	918.0
17.5°	727.6	754.5	792.8	854.9	895.2
20°	674.8	701.7	749.3	819.7	869.4
22.5°	622.0	651.0	702.7	782.4	841.4
25°	567.2	598.2	656.2	745.2	811.4
27.5°	511.3	543.4	607.5	706.9	778.3
30°	455.4	488.5	557.8	665.5	745.2
32.5°	399.5	434.7	508.2	623.0	710.0
35°	342.6	378.8	458.5	580.6	673.8
37.5°	287.7	323.9	408.8	537.1	637.5
40°	230.8	270.1	360.2	493.7	601.3
42.5°	174.9	215.3	311.5	450.2	562.0
45°	126.3	163.5	263.9	407.8	522.7
47.5°	97.3	118.0	215.3	364.3	484.4
50°	84.9	91.1	170.8	323.9	447.1
52.5°	73.5	77.6	128.3	286.7	406.7
55°	64.2	67.3	94.2	246.3	365.3
57.5°	53.8	58.0	74.5	207.0	322.9
60°	45.5	47.6	66.2	170.8	280.5
62.5°	37.3	39.3	59.0	134.5	232.9
65°	30.0	32.1	51.7	99.4	187.3
67.5°	24.8	25.9	43.5	70.4	143.9
70°	20.7	21.7	36.2	48.6	101.4
72.5°	17.6	20.7	29.0	35.2	64.2
75°	14.5	19.7	23.8	24.8	31.0
77.5°	12.4	18.6	19.7	19.7	17.6
80°	10.3	15.5	16.6	15.5	14.5
82.5°	8.3	12.4	13.5	13.5	11.4
85°	6.2	10.3	12.4	11.4	8.3
87.5°	4.1	9.3	10.3	9.3	6.2
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	6.53	7.89	6.90	8.20	8.51	16.14	17.49	16.51	17.81	18.12
	3H	7.39	8.59	7.77	8.92	9.28	16.98	18.18	17.36	18.51	18.88
	4H	7.81	8.93	8.22	9.28	9.67	17.06	18.18	17.46	18.53	18.91
	6H	8.24	9.27	8.65	9.64	10.03	17.04	18.07	17.45	18.44	18.83
	8H	8.42	9.39	8.85	9.78	10.19	17.03	18.00	17.46	18.39	18.80
	12H	8.58	9.51	9.01	9.89	10.32	17.02	17.95	17.45	18.33	18.76
4H	2H	7.49	8.61	7.90	8.96	9.34	16.01	17.12	16.41	17.48	17.86
	3H	8.54	9.46	8.96	9.86	10.27	16.92	17.83	17.33	18.24	18.64
	4H	9.11	9.93	9.54	10.35	10.79	17.02	17.84	17.45	18.26	18.70
	6H	9.70	10.41	10.17	10.86	11.32	17.04	17.75	17.51	18.20	18.66
	8H	9.94	10.60	10.41	11.05	11.52	17.05	17.71	17.51	18.15	18.62
	12H	10.17	10.75	10.65	11.24	11.71	17.06	17.64	17.54	18.13	18.60
8H	4H	9.58	10.24	10.05	10.69	11.16	16.94	17.60	17.41	18.05	18.52
	6H	10.39	10.93	10.89	11.43	11.91	17.00	17.54	17.50	18.03	18.51
	8H	10.77	11.26	11.29	11.77	12.26	17.03	17.52	17.55	18.03	18.52
	12H	11.16	11.59	11.67	12.08	12.65	17.09	17.52	17.61	18.02	18.59
12H	4H	9.63	10.22	10.12	10.70	11.17	16.91	17.49	17.39	17.98	18.45
	6H	10.51	11.00	11.03	11.51	12.01	16.96	17.45	17.48	17.96	18.46
	8H	11.00	11.43	11.52	11.93	12.50	17.04	17.46	17.55	17.96	18.53