

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: P1062219

Luminaire Tested: S125RDR-H850D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

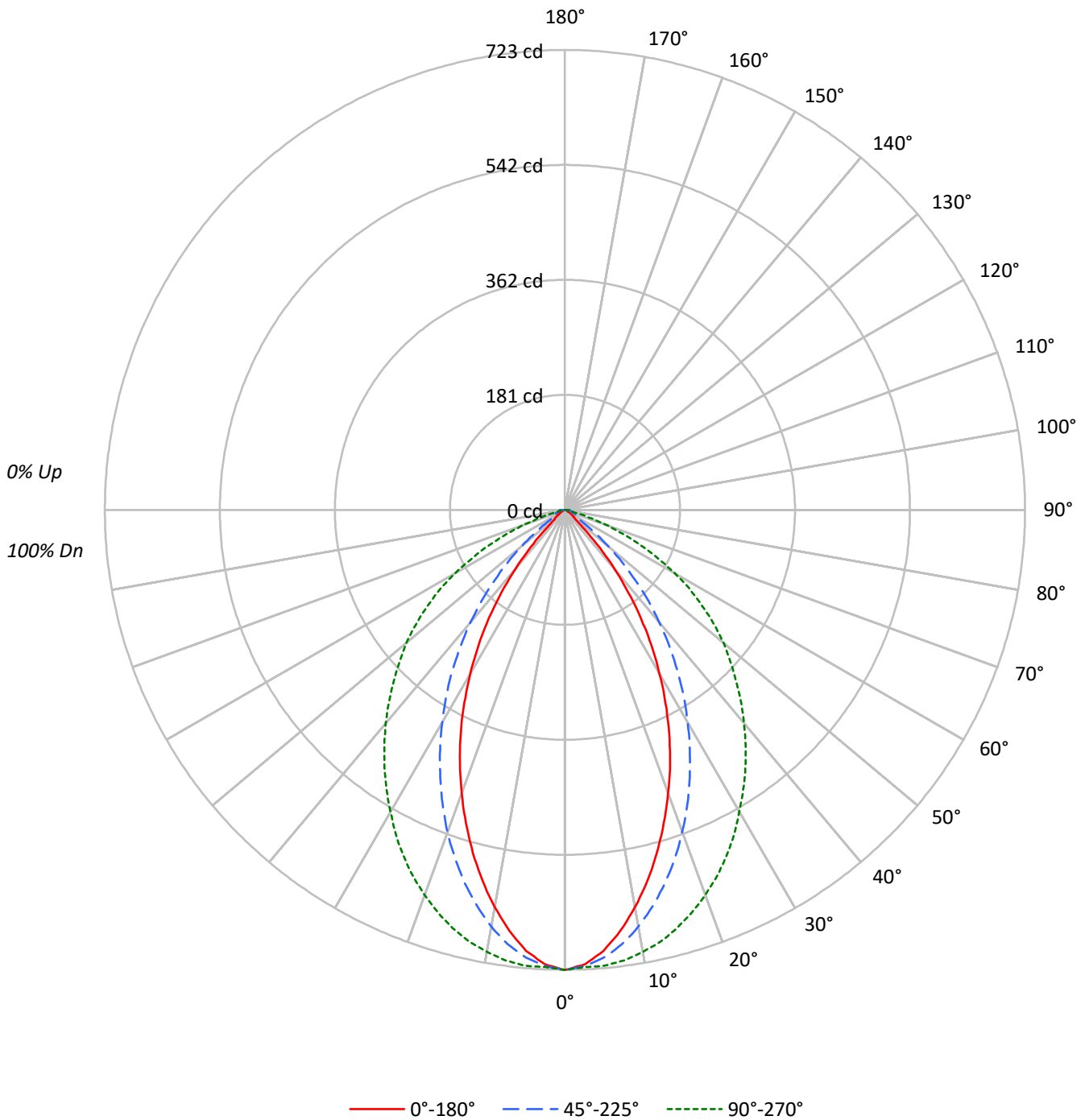
Lumens per Lamp: N/A
Luminaire Lumens: 935.7 lumens
Efficiency: N/A
Efficacy: 39.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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: P1062219

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1062219

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80				
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65				
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59				
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53				
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49				
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45				
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41				
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4980	4980	4980
5°	4810	4882	4971
10°	4433	4652	4933
15°	3981	4330	4852
20°	3474	3951	4722
25°	2943	3523	4560
30°	2364	3066	4358
35°	1749	2587	4154
40°	1083	2065	3937
45°	423	1510	3701
50°	198	947	3487
55°	145	406	3164
60°	99	288	2744
65°	65	301	2134
70°	64	276	1343
75°	85	277	428
80°	127	317	285
85°	190	632	442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3701 cd/sqm



TEST NUMBER: P1062219

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.3	7.1
10°-20°	171.9	18.4
20°-30°	218.9	23.4
30°-40°	203.7	21.8
40°-50°	140.2	15.0
50°-60°	79.4	8.5
60°-70°	37.5	4.0
70°-80°	11.7	1.3
80°-90°	6.1	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°	457.1	48.8
0°-40°	660.8	70.6
0°-60°	880.4	94.1
0°-90°	935.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	935.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	696	706	706	713	719	64
15°	558	577	608	653	681	156
25°	387	412	464	542	600	177
35°	208	237	308	413	494	129
45°	43	69	155	280	380	41
55°	12	14	34	162	264	11
65°	4	5	18	58	131	4
75°	3	7	10	11	16	3
85°	2	6	8	7	6	3
90°	0	0	0	0	0	



TEST NUMBER: P1062219

CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	723.3	723.3	723.3	723.3	723.3
2.5°	715.2	722.5	717.6	718.5	719.3
5°	695.9	705.6	706.4	712.8	719.3
7.5°	667.8	679.9	688.7	704.0	714.4
10°	634.1	648.5	665.4	690.3	705.6
12.5°	597.9	614.8	638.1	673.4	695.1
15°	558.5	577.0	607.5	653.4	680.7
17.5°	516.7	537.6	574.6	629.2	663.8
20°	474.1	496.6	539.2	601.9	644.5
22.5°	431.6	454.9	502.3	572.2	623.6
25°	387.4	412.3	463.7	541.7	600.3
27.5°	342.3	368.1	425.1	510.3	575.4
30°	297.3	324.7	385.7	478.2	548.1
32.5°	253.1	280.5	347.2	446.0	521.6
35°	208.1	237.1	307.8	413.1	494.2
37.5°	163.1	194.5	269.2	379.3	466.1
40°	120.5	150.3	229.8	346.4	438.0
42.5°	80.4	109.3	194.5	313.4	409.1
45°	43.4	69.1	155.1	280.5	380.1
47.5°	23.3	37.0	121.3	248.3	352.0
50°	18.5	20.9	88.4	218.6	325.5
52.5°	15.3	16.9	57.9	190.5	294.9
55°	12.1	13.7	33.8	161.5	263.6
57.5°	9.6	11.3	21.7	134.2	233.1
60°	7.2	8.8	20.9	107.7	199.3
62.5°	5.6	6.4	19.3	82.8	163.9
65°	4.0	4.8	18.5	57.9	131.0
67.5°	3.2	4.0	16.9	37.0	98.0
70°	3.2	3.2	13.7	24.1	66.7
72.5°	3.2	5.6	12.1	16.1	40.2
75°	3.2	7.2	10.4	11.3	16.1
77.5°	3.2	8.0	8.8	8.8	8.8
80°	3.2	7.2	8.0	8.0	7.2
82.5°	3.2	6.4	7.2	8.0	6.4
85°	2.4	6.4	8.0	7.2	5.6
87.5°	2.4	6.4	7.2	6.4	4.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1062219
 CATALOG NUMBER: S125RDR-H850D935-X4F0-XX-UDD-BVL-W

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	14.82	16.11	15.19	16.43	16.74
	3H	0.00	0.00	0.00	0.00	0.00	15.54	16.68	15.92	17.02	17.38
	4H	0.00	0.00	0.00	0.00	0.00	15.57	16.63	15.97	16.98	17.36
	6H	0.00	0.12	0.00	0.49	0.89	15.52	16.49	15.93	16.86	17.26
	8H	0.00	0.71	0.22	1.10	1.51	15.49	16.42	15.92	16.81	17.21
	12H	0.37	1.26	0.81	1.64	2.07	15.48	16.36	15.91	16.74	17.17
4H	2H	0.00	0.41	0.00	0.76	1.14	14.61	15.68	15.02	16.03	16.41
	3H	0.15	1.02	0.56	1.42	1.83	15.37	16.24	15.78	16.64	17.05
	4H	1.15	1.92	1.59	2.34	2.79	15.40	16.17	15.84	16.59	17.04
	6H	2.42	3.09	2.88	3.53	4.00	15.38	16.05	15.84	16.49	16.96
	8H	3.00	3.62	3.47	4.07	4.54	15.36	15.98	15.83	16.43	16.90
	12H	3.56	4.11	4.04	4.59	5.07	15.37	15.92	15.86	16.40	16.88
8H	4H	2.56	3.18	3.03	3.63	4.10	15.28	15.91	15.75	16.35	16.83
	6H	4.11	4.62	4.62	5.12	5.60	15.27	15.78	15.77	16.28	16.76
	8H	4.90	5.36	5.43	5.88	6.37	15.28	15.74	15.81	16.26	16.75
	12H	5.74	6.14	6.26	6.64	7.21	15.34	15.75	15.86	16.24	16.81
12H	4H	2.78	3.33	3.27	3.81	4.29	15.24	15.79	15.73	16.27	16.75
	6H	4.48	4.94	5.01	5.46	5.95	15.22	15.68	15.75	16.20	16.69
	8H	5.47	5.87	5.98	6.37	6.94	15.27	15.68	15.79	16.17	16.74