

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: P1062093

Luminaire Tested: S125RDR-H610D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062093
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-H610D835-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, 80 CRI LEDS
Ballast/Driver: -

Summary

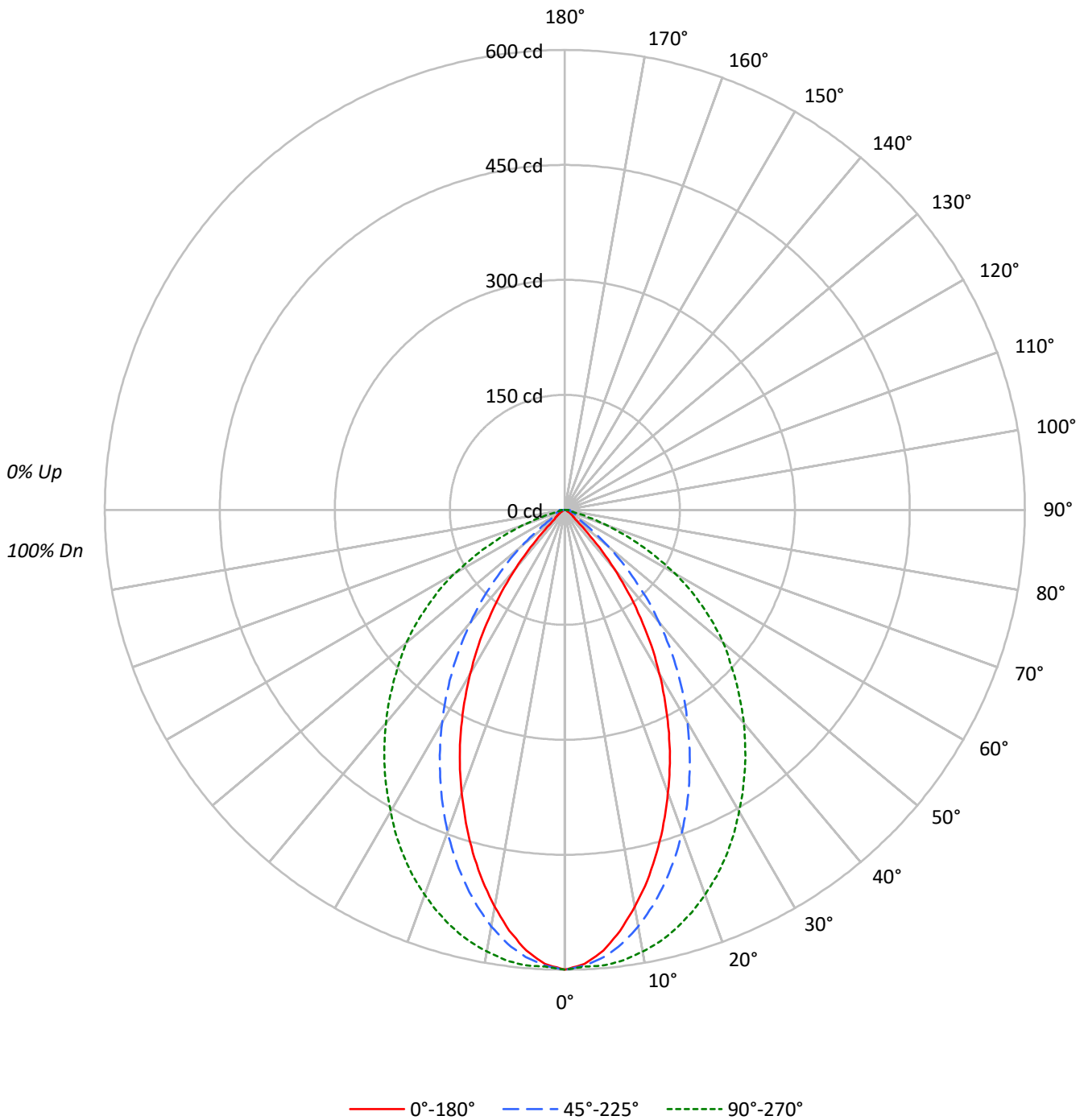
Lumens per Lamp: N/A
Luminaire Lumens: 776.0 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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: P1062093

CATALOG NUMBER: S125RDR-H610D835-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1062093

CATALOG NUMBER: S125RDR-H610D835-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	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°	4130	4130	4130
5°	3989	4049	4123
10°	3676	3858	4091
15°	3302	3591	4024
20°	2881	3277	3916
25°	2440	2921	3782
30°	1961	2543	3613
35°	1451	2146	3445
40°	899	1713	3264
45°	351	1252	3069
50°	164	785	2891
55°	120	336	2624
60°	83	238	2276
65°	54	249	1769
70°	54	227	1113
75°	72	231	354
80°	107	266	238
85°	158	529	371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3069 cd/sqm



TEST NUMBER: P1062093

CATALOG NUMBER: S125RDR-H610D835-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.0	7.1
10°-20°	142.5	18.4
20°-30°	181.5	23.4
30°-40°	169.0	21.8
40°-50°	116.3	15.0
50°-60°	65.8	8.5
60°-70°	31.1	4.0
70°-80°	9.7	1.3
80°-90°	5.1	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°	379.0	48.8
0°-40°	548.0	70.6
0°-60°	730.1	94.1
0°-90°	776.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	776.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	577	585	586	591	596	53
15°	463	478	504	542	564	129
25°	321	342	384	449	498	146
35°	173	197	255	343	410	107
45°	36	57	129	233	315	34
55°	10	11	28	134	219	9
65°	3	4	15	48	109	4
75°	3	6	9	9	13	3
85°	2	5	7	6	5	2
90°	0	0	0	0	0	

TEST NUMBER: P1062093

CATALOG NUMBER: S125RDR-H610D835-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	599.8	599.8	599.8	599.8	599.8
2.5°	593.2	599.2	595.2	595.8	596.5
5°	577.2	585.2	585.8	591.2	596.5
7.5°	553.8	563.8	571.2	583.8	592.5
10°	525.8	537.8	551.8	572.5	585.2
12.5°	495.8	509.8	529.2	558.5	576.5
15°	463.2	478.5	503.8	541.8	564.5
17.5°	428.5	445.9	476.5	521.8	550.5
20°	393.2	411.9	447.2	499.2	534.5
22.5°	357.9	377.2	416.5	474.5	517.2
25°	321.2	341.9	384.5	449.2	497.8
27.5°	283.9	305.2	352.6	423.2	477.2
30°	246.6	269.3	319.9	396.5	454.5
32.5°	209.9	232.6	287.9	369.9	432.5
35°	172.6	196.6	255.3	342.6	409.9
37.5°	135.3	161.3	223.3	314.6	386.5
40°	100.0	124.6	190.6	287.2	363.2
42.5°	66.6	90.6	161.3	259.9	339.2
45°	36.0	57.3	128.6	232.6	315.2
47.5°	19.3	30.7	100.6	205.9	291.9
50°	15.3	17.3	73.3	181.3	269.9
52.5°	12.7	14.0	48.0	158.0	244.6
55°	10.0	11.3	28.0	134.0	218.6
57.5°	8.0	9.3	18.0	111.3	193.3
60°	6.0	7.3	17.3	89.3	165.3
62.5°	4.7	5.3	16.0	68.6	136.0
65°	3.3	4.0	15.3	48.0	108.6
67.5°	2.7	3.3	14.0	30.7	81.3
70°	2.7	2.7	11.3	20.0	55.3
72.5°	2.7	4.7	10.0	13.3	33.3
75°	2.7	6.0	8.7	9.3	13.3
77.5°	2.7	6.7	7.3	7.3	7.3
80°	2.7	6.0	6.7	6.7	6.0
82.5°	2.7	5.3	6.0	6.7	5.3
85°	2.0	5.3	6.7	6.0	4.7
87.5°	2.0	5.3	6.0	5.3	3.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1062093
 CATALOG NUMBER: S125RDR-H610D835-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	14.17	15.46	14.54	15.78	16.09
	3H	0.00	0.00	0.00	0.00	0.00	14.89	16.04	15.27	16.37	16.73
	4H	0.00	0.00	0.00	0.00	0.00	14.92	15.98	15.32	16.33	16.71
	6H	0.00	0.00	0.00	0.00	0.27	14.87	15.84	15.28	16.21	16.61
	8H	0.00	0.10	0.00	0.49	0.90	14.84	15.77	15.27	16.16	16.56
	12H	0.00	0.65	0.20	1.03	1.46	14.83	15.71	15.26	16.09	16.52
4H	2H	0.00	0.00	0.00	0.08	0.47	13.96	15.03	14.37	15.38	15.76
	3H	0.00	0.36	0.00	0.76	1.16	14.72	15.59	15.13	15.99	16.40
	4H	0.50	1.28	0.94	1.70	2.14	14.75	15.52	15.18	15.94	16.39
	6H	1.80	2.46	2.26	2.91	3.38	14.73	15.39	15.19	15.84	16.31
	8H	2.38	3.00	2.85	3.45	3.92	14.71	15.33	15.18	15.78	16.25
	12H	2.94	3.49	3.42	3.97	4.45	14.72	15.27	15.21	15.75	16.23
8H	4H	1.92	2.54	2.39	2.99	3.46	14.63	15.26	15.10	15.70	16.17
	6H	3.49	4.00	3.99	4.49	4.98	14.62	15.13	15.12	15.63	16.11
	8H	4.28	4.74	4.80	5.25	5.74	14.63	15.09	15.16	15.61	16.10
	12H	5.11	5.52	5.63	6.01	6.58	14.69	15.10	15.21	15.59	16.17
12H	4H	2.14	2.69	2.63	3.18	3.65	14.59	15.14	15.08	15.62	16.10
	6H	3.86	4.32	4.38	4.83	5.33	14.58	15.03	15.10	15.55	16.04
	8H	4.85	5.25	5.36	5.74	6.32	14.62	15.03	15.14	15.52	16.09