

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: P1062229

Luminaire Tested: S125RDR-H850D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062229
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

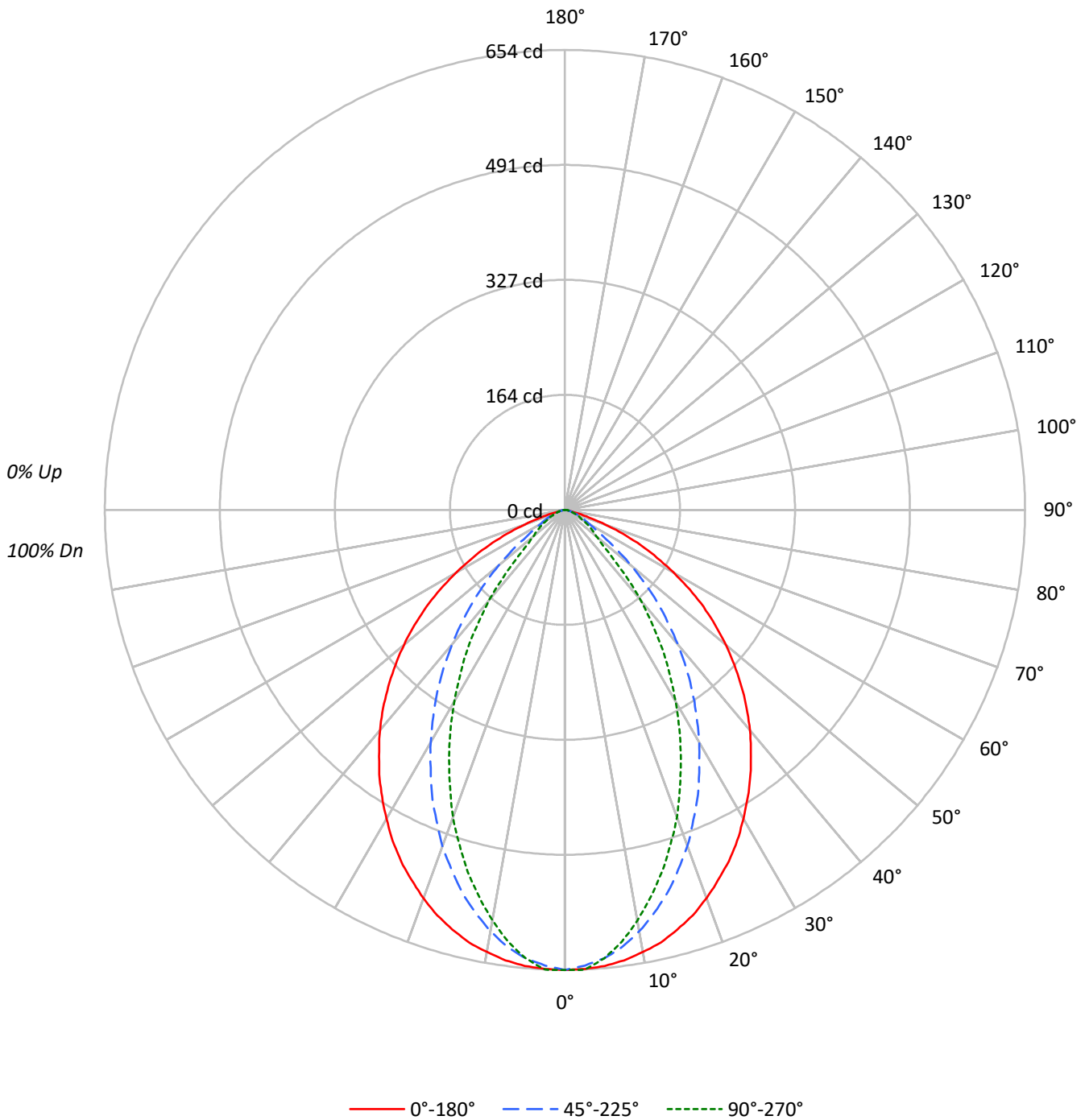
Lumens per Lamp: N/A
Luminaire Lumens: 946.4 lumens
Efficiency: N/A
Efficacy: 40.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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

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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	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	97	98	96	95	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47
8	69	58	50	45	68	57	50	45	56	50	45	55	49	45	54	48	45	43
9	65	54	47	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4506	4506	4506
5°	4499	4425	4425
10°	4465	4255	4145
15°	4404	4018	3799
20°	4308	3729	3412
25°	4188	3398	2963
30°	4032	3034	2499
35°	3865	2656	2027
40°	3677	2242	1502
45°	3457	1797	907
50°	3197	1319	623
55°	2885	808	519
60°	2450	549	412
65°	1937	420	326
70°	1222	302	268
75°	399	221	221
80°	131	167	198
85°	63	134	134

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.5	6.4
10°-20°	159.8	16.9
20°-30°	210.2	22.2
30°-40°	206.6	21.8
40°-50°	156.3	16.5
50°-60°	94.7	10.0
60°-70°	44.7	4.7
70°-80°	11.7	1.2
80°-90°	1.8	0.2
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°	430.6	45.5
0°-40°	637.2	67.3
0°-60°	888.2	93.9
0°-90°	946.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	946.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	651	649	640	641	640	62
15°	618	601	564	542	533	174
25°	551	510	447	406	390	253
35°	460	398	316	260	241	287
45°	355	279	185	117	93	273
55°	240	165	67	46	43	214
65°	119	61	26	22	20	117
75°	15	10	8	8	8	23
85°	1	1	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	654.4	654.4	654.4	654.4	654.4
2.5°	653.5	653.5	648.5	654.4	654.4
5°	651.0	649.4	640.2	641.1	640.2
7.5°	646.1	642.7	626.9	622.8	619.4
10°	638.6	631.9	608.6	598.7	592.8
12.5°	630.3	618.6	587.0	572.9	563.7
15°	617.8	601.2	563.7	542.1	533.0
17.5°	604.5	580.4	536.3	510.5	498.9
20°	587.9	559.6	508.9	477.3	465.6
22.5°	569.6	536.3	477.3	442.3	426.5
25°	551.3	509.7	447.3	405.8	390.0
27.5°	530.5	483.1	413.2	370.0	352.5
30°	507.2	456.5	381.6	336.7	314.3
32.5°	483.9	429.0	348.4	299.3	276.9
35°	459.8	398.3	316.0	260.3	241.1
37.5°	434.0	369.2	282.7	224.5	202.0
40°	409.1	340.1	249.4	187.9	167.1
42.5°	382.5	311.0	216.2	152.2	128.9
45°	355.0	279.4	184.6	117.2	93.1
47.5°	326.8	251.1	153.0	86.5	69.8
50°	298.5	221.2	123.1	64.0	58.2
52.5°	269.4	192.1	93.1	53.2	50.7
55°	240.3	164.6	67.3	45.7	43.2
57.5°	210.4	134.7	50.7	39.1	36.6
60°	177.9	108.1	39.9	32.4	29.9
62.5°	148.0	84.8	32.4	26.6	24.9
65°	118.9	60.7	25.8	21.6	20.0
67.5°	89.0	40.7	20.0	16.6	16.6
70°	60.7	26.6	15.0	13.3	13.3
72.5°	36.6	15.8	10.8	10.8	10.8
75°	15.0	10.0	8.3	8.3	8.3
77.5°	5.0	5.8	5.8	6.7	6.7
80°	3.3	3.3	4.2	5.0	5.0
82.5°	1.7	2.5	2.5	3.3	3.3
85°	0.8	0.8	1.7	1.7	1.7
87.5°	0.0	0.0	0.0	0.8	0.8
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	14.56	15.89	14.92	16.20	16.52	5.22	6.55	5.58	6.86	7.18
	3H	15.27	16.44	15.64	16.77	17.14	6.00	7.17	6.38	7.50	7.87
	4H	15.28	16.38	15.68	16.73	17.11	6.24	7.34	6.65	7.69	8.07
	6H	15.21	16.22	15.63	16.59	16.98	6.43	7.43	6.84	7.80	8.20
	8H	15.17	16.12	15.60	16.51	16.92	6.47	7.42	6.90	7.81	8.22
	12H	15.13	16.04	15.56	16.42	16.85	6.48	7.39	6.91	7.77	8.20
4H	2H	14.39	15.49	14.79	15.84	16.22	5.71	6.80	6.11	7.15	7.53
	3H	15.14	16.03	15.55	16.43	16.84	6.61	7.50	7.02	7.91	8.31
	4H	15.15	15.95	15.59	16.37	16.81	6.92	7.72	7.36	8.14	8.58
	6H	15.09	15.78	15.56	16.22	16.69	7.19	7.87	7.65	8.32	8.78
	8H	15.04	15.68	15.51	16.13	16.60	7.25	7.89	7.72	8.34	8.81
	12H	15.00	15.56	15.48	16.04	16.52	7.28	7.84	7.76	8.32	8.80
8H	4H	15.04	15.68	15.51	16.12	16.59	7.03	7.67	7.50	8.12	8.59
	6H	14.96	15.48	15.46	15.98	16.46	7.36	7.88	7.86	8.37	8.85
	8H	14.91	15.37	15.43	15.89	16.38	7.46	7.93	7.98	8.44	8.93
	12H	14.87	15.28	15.38	15.77	16.35	7.52	7.94	8.04	8.43	9.00
12H	4H	14.99	15.56	15.48	16.04	16.51	7.01	7.57	7.49	8.05	8.53
	6H	14.90	15.37	15.43	15.89	16.38	7.33	7.79	7.85	8.31	8.80
	8H	14.87	15.28	15.38	15.78	16.35	7.47	7.88	7.98	8.37	8.94