

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: P1062166

Luminaire Tested: S125RDR-H850D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062166
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-H850D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

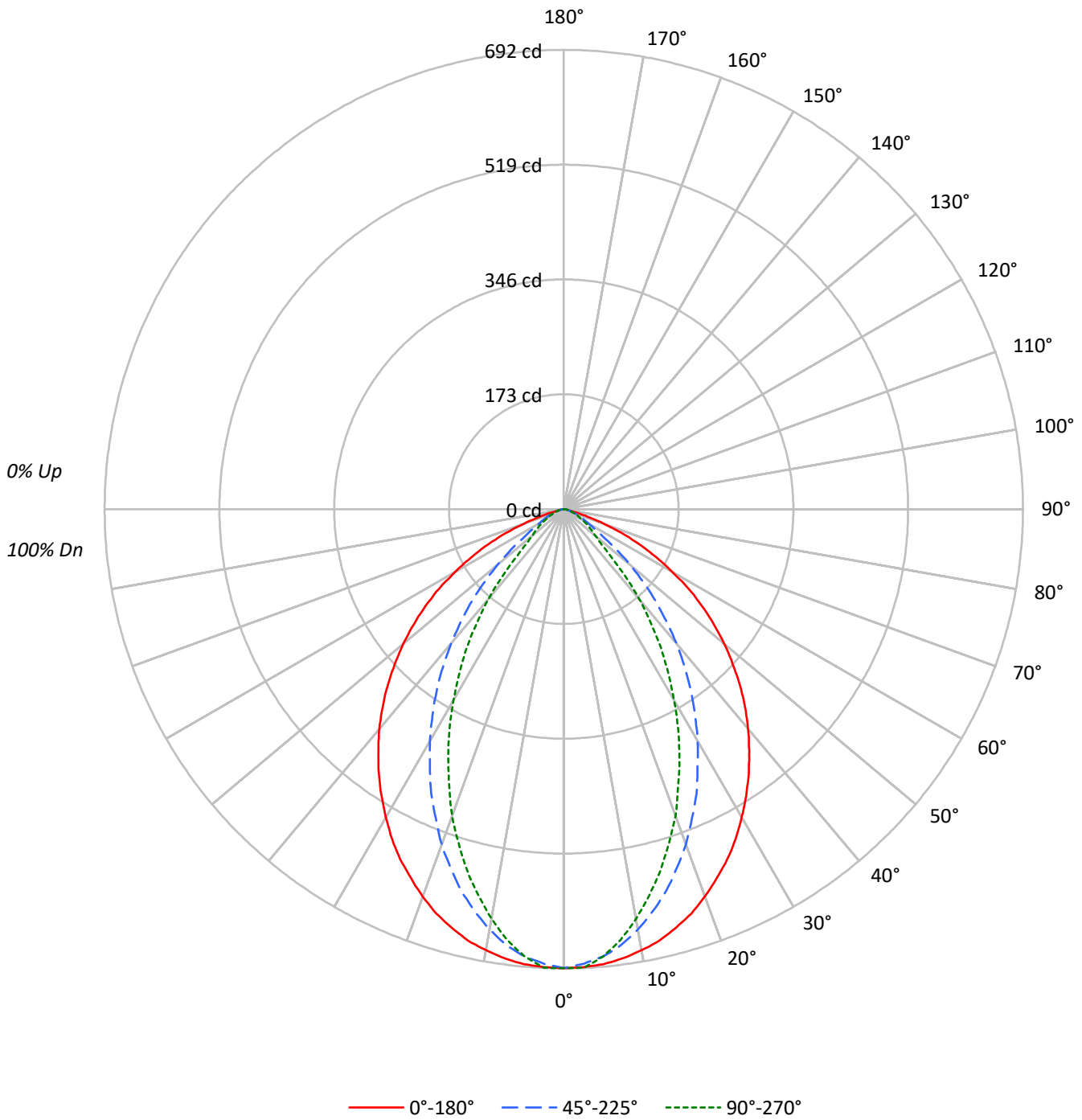
Lumens per Lamp: N/A
Luminaire Lumens: 1000.3 lumens
Efficiency: N/A
Efficacy: 42.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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°	4763	4763	4763
5°	4757	4677	4677
10°	4719	4498	4381
15°	4655	4248	4016
20°	4553	3941	3606
25°	4427	3592	3131
30°	4262	3207	2641
35°	4085	2807	2143
40°	3886	2370	1588
45°	3654	1900	958
50°	3379	1394	659
55°	3049	855	549
60°	2590	581	435
65°	2048	443	344
70°	1292	318	284
75°	420	234	234
80°	139	174	210
85°	71	142	142

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3654 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	6.4
10°-20°	168.9	16.9
20°-30°	222.2	22.2
30°-40°	218.4	21.8
40°-50°	165.2	16.5
50°-60°	100.2	10.0
60°-70°	47.3	4.7
70°-80°	12.3	1.2
80°-90°	1.9	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°	455.1	45.5
0°-40°	673.5	67.3
0°-60°	938.8	93.9
0°-90°	1000.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1000.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	688	686	677	678	677	65
15°	653	635	596	573	563	184
25°	583	539	473	429	412	268
35°	486	421	334	275	255	303
45°	375	295	195	124	98	289
55°	254	174	71	48	46	226
65°	126	64	27	23	21	124
75°	16	10	9	9	9	25
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°	691.7	691.7	691.7	691.7	691.7
2.5°	690.8	690.8	685.5	691.7	691.7
5°	688.2	686.4	676.7	677.6	676.7
7.5°	682.9	679.4	662.7	658.3	654.8
10°	675.0	667.9	643.3	632.8	626.6
12.5°	666.2	653.9	620.5	605.5	595.9
15°	653.0	635.4	595.9	573.0	563.4
17.5°	638.9	613.5	566.9	539.6	527.3
20°	621.4	591.5	537.9	504.5	492.2
22.5°	602.0	566.9	504.5	467.6	450.9
25°	582.7	538.7	472.8	428.9	412.2
27.5°	560.7	510.6	436.8	391.1	372.6
30°	536.1	482.5	403.4	355.9	332.2
32.5°	511.5	453.5	368.2	316.4	292.7
35°	486.0	421.0	334.0	275.1	254.9
37.5°	458.8	390.2	298.8	237.3	213.6
40°	432.4	359.5	263.7	198.6	176.7
42.5°	404.3	328.7	228.5	160.8	136.2
45°	375.3	295.3	195.1	123.9	98.4
47.5°	345.4	265.4	161.7	91.4	73.8
50°	315.5	233.8	130.1	67.7	61.5
52.5°	284.8	203.0	98.4	56.2	53.6
55°	254.0	174.0	71.2	48.3	45.7
57.5°	222.4	142.4	53.6	41.3	38.7
60°	188.1	114.3	42.2	34.3	31.6
62.5°	156.4	89.6	34.3	28.1	26.4
65°	125.7	64.2	27.2	22.9	21.1
67.5°	94.0	43.1	21.1	17.6	17.6
70°	64.2	28.1	15.8	14.1	14.1
72.5°	38.7	16.7	11.4	11.4	11.4
75°	15.8	10.5	8.8	8.8	8.8
77.5°	5.3	6.2	6.2	7.0	7.0
80°	3.5	3.5	4.4	5.3	5.3
82.5°	1.8	2.6	2.6	3.5	3.5
85°	0.9	0.9	1.8	1.8	1.8
87.5°	0.0	0.0	0.0	0.9	0.9
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	14.75	16.08	15.12	16.40	16.71	5.41	6.74	5.77	7.05	7.37
	3H	15.46	16.64	15.84	16.97	17.33	6.19	7.37	6.57	7.70	8.06
	4H	15.48	16.57	15.88	16.92	17.30	6.44	7.54	6.84	7.89	8.27
	6H	15.41	16.41	15.82	16.78	17.18	6.62	7.62	7.03	7.99	8.39
	8H	15.36	16.32	15.79	16.71	17.11	6.66	7.61	7.09	8.01	8.41
	12H	15.32	16.23	15.76	16.62	17.05	6.67	7.58	7.10	7.96	8.39
4H	2H	14.58	15.68	14.99	16.03	16.41	5.89	6.99	6.30	7.34	7.72
	3H	15.33	16.22	15.74	16.63	17.03	6.80	7.69	7.22	8.10	8.50
	4H	15.35	16.14	15.78	16.56	17.00	7.12	7.91	7.55	8.33	8.77
	6H	15.29	15.97	15.75	16.42	16.88	7.38	8.06	7.84	8.51	8.97
	8H	15.23	15.87	15.70	16.32	16.79	7.44	8.08	7.91	8.53	9.00
	12H	15.19	15.75	15.68	16.24	16.71	7.47	8.03	7.95	8.51	8.99
8H	4H	15.23	15.87	15.70	16.31	16.79	7.23	7.87	7.70	8.31	8.79
	6H	15.16	15.67	15.66	16.17	16.65	7.55	8.07	8.05	8.56	9.04
	8H	15.10	15.57	15.62	16.08	16.57	7.65	8.12	8.17	8.63	9.13
	12H	15.06	15.47	15.58	15.97	16.54	7.72	8.13	8.23	8.62	9.19
12H	4H	15.19	15.75	15.67	16.23	16.71	7.20	7.76	7.69	8.25	8.72
	6H	15.10	15.56	15.62	16.08	16.57	7.52	7.98	8.04	8.50	8.99
	8H	15.06	15.47	15.58	15.97	16.54	7.66	8.07	8.17	8.56	9.13