

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: P1061840

Luminaire Tested: S125RDR-H1090D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H1090D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

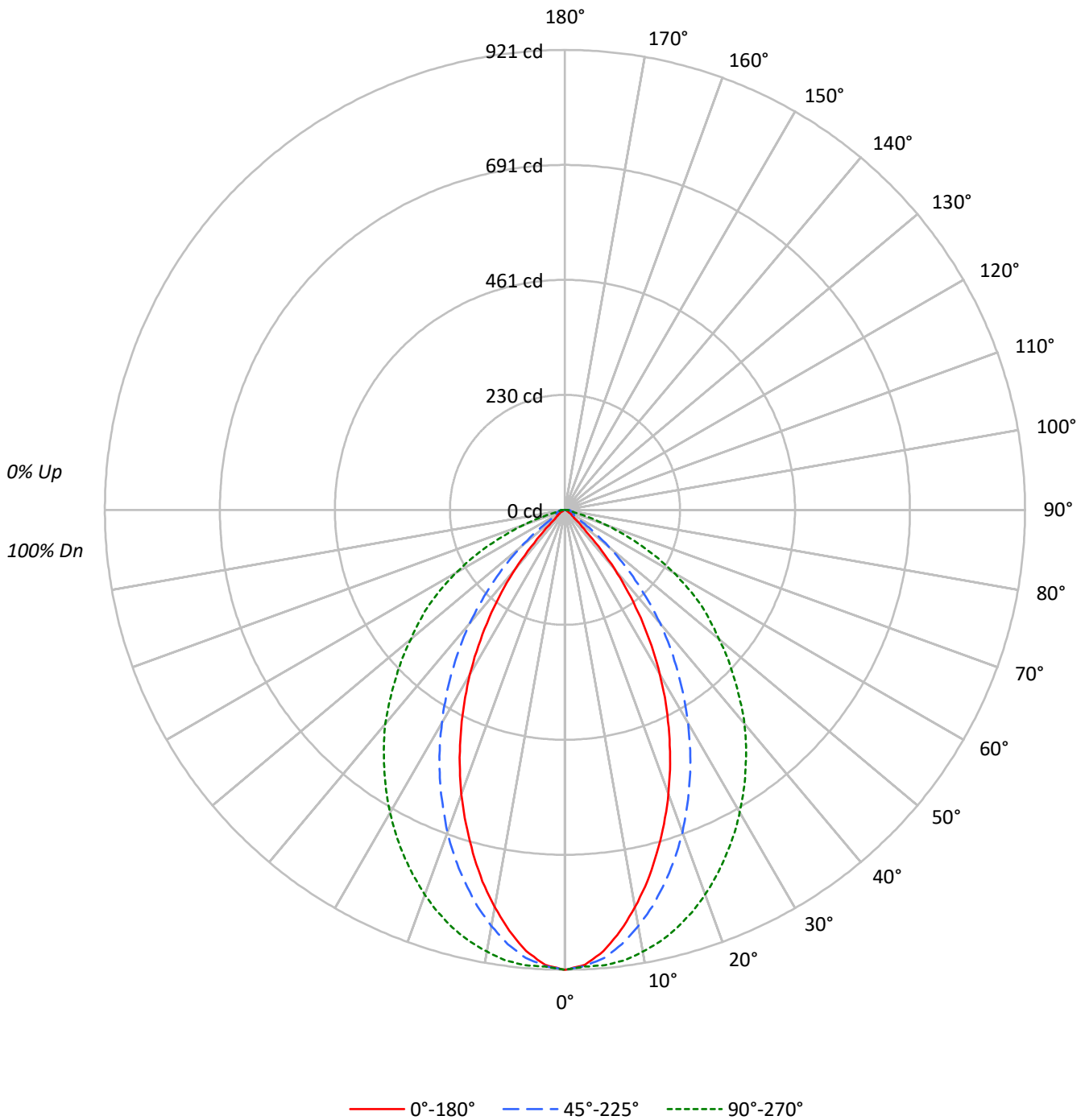
Lumens per Lamp: N/A
Luminaire Lumens: 1184.7 lumens
Efficiency: N/A
Efficacy: 38.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	85	75	68	63	84	74	67	62	72	66	62	70	65	61	69	64	61	59				59
6	80	69	62	57	78	68	62	57	67	61	56	65	60	56	64	59	55	54				54
7	75	64	57	52	74	63	56	52	62	56	51	61	55	51	59	54	51	49				49
8	71	60	52	47	69	59	52	47	58	52	47	57	51	47	55	50	47	45				45
9	67	55	48	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42				42
10	63	52	45	41	62	51	45	40	50	44	40	50	44	40	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6342	6342	6342
5°	6131	6225	6327
10°	5647	5917	6281
15°	5070	5506	6178
20°	4439	5037	6010
25°	3749	4498	5800
30°	3021	3914	5564
35°	2222	3299	5301
40°	1387	2661	5027
45°	519	1945	4672
50°	243	1215	4314
55°	176	504	3990
60°	125	266	3452
65°	73	314	2735
70°	68	366	1735
75°	90	362	543
80°	135	448	404
85°	269	719	537

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	7.1
10°-20°	218.7	18.5
20°-30°	278.6	23.5
30°-40°	259.3	21.9
40°-50°	177.6	15.0
50°-60°	97.8	8.3
60°-70°	46.3	3.9
70°-80°	14.6	1.2
80°-90°	7.4	0.6
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°	581.7	49.1
0°-40°	841.0	71.0
0°-60°	1116.4	94.2
0°-90°	1184.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1184.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	887	898	901	908	915	82
15°	711	734	772	830	867	198
25°	494	524	592	687	763	225
35°	264	302	392	522	631	164
45°	53	90	200	354	480	51
55°	15	17	42	197	332	13
65°	4	6	19	73	168	5
75°	3	6	14	15	20	4
85°	3	8	9	8	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	921.1	921.1	921.1	921.1	921.1
2.5°	912.0	921.1	914.3	914.3	915.4
5°	887.1	898.4	900.7	907.5	915.4
7.5°	850.8	865.5	876.9	896.2	909.8
10°	807.7	825.8	846.3	878.0	898.4
12.5°	762.3	781.6	812.2	856.5	884.8
15°	711.3	733.9	772.5	830.4	866.7
17.5°	659.1	684.0	731.7	799.7	845.1
20°	605.8	631.9	687.4	763.4	820.2
22.5°	550.2	578.5	639.8	726.0	792.9
25°	493.5	524.1	592.1	687.4	763.4
27.5°	436.7	468.5	543.4	647.7	732.8
30°	380.0	412.9	492.3	606.9	699.9
32.5°	322.2	358.5	442.4	566.1	665.9
35°	264.3	301.7	392.5	521.8	630.7
37.5°	207.6	246.2	343.7	479.8	595.6
40°	154.3	192.8	296.1	437.9	559.3
42.5°	99.8	140.7	246.2	394.8	519.5
45°	53.3	89.6	199.7	353.9	479.8
47.5°	28.4	47.6	155.4	313.1	442.4
50°	22.7	26.1	113.4	272.3	402.7
52.5°	18.2	20.4	72.6	230.3	367.5
55°	14.7	17.0	42.0	197.4	332.4
57.5°	11.3	13.6	23.8	164.5	291.5
60°	9.1	10.2	19.3	131.6	250.7
62.5°	5.7	7.9	19.3	102.1	209.9
65°	4.5	5.7	19.3	72.6	167.9
67.5°	4.5	4.5	19.3	47.6	125.9
70°	3.4	3.4	18.2	30.6	86.2
72.5°	3.4	3.4	15.9	20.4	49.9
75°	3.4	5.7	13.6	14.7	20.4
77.5°	3.4	9.1	12.5	12.5	11.3
80°	3.4	9.1	11.3	10.2	10.2
82.5°	3.4	9.1	9.1	9.1	7.9
85°	3.4	7.9	9.1	7.9	6.8
87.5°	3.4	7.9	7.9	7.9	4.5
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	0.00	0.00	0.00	0.00	0.00	15.46	16.75	15.83	17.06	17.38
	3H	0.00	0.00	0.00	0.00	0.00	16.25	17.39	16.63	17.72	18.08
	4H	0.00	0.00	0.00	0.00	0.00	16.28	17.33	16.68	17.68	18.07
	6H	0.00	0.12	0.00	0.49	0.88	16.23	17.20	16.65	17.57	17.97
	8H	0.00	0.74	0.26	1.14	1.54	16.21	17.13	16.64	17.52	17.92
	12H	0.57	1.45	1.01	1.83	2.26	16.19	17.07	16.62	17.45	17.88
4H	2H	0.00	0.30	0.00	0.65	1.04	15.25	16.30	15.65	16.66	17.04
	3H	0.11	0.98	0.53	1.38	1.79	16.07	16.94	16.49	17.34	17.74
	4H	0.72	1.49	1.15	1.91	2.35	16.11	16.88	16.54	17.30	17.74
	6H	2.22	2.88	2.68	3.33	3.80	16.10	16.76	16.56	17.21	17.67
	8H	2.96	3.58	3.43	4.03	4.50	16.08	16.70	16.55	17.15	17.62
	12H	3.70	4.24	4.18	4.73	5.20	16.08	16.63	16.57	17.11	17.58
8H	4H	2.76	3.38	3.23	3.82	4.29	15.99	16.61	16.46	17.06	17.53
	6H	4.50	5.01	5.01	5.51	5.99	16.00	16.50	16.50	17.00	17.48
	8H	5.46	5.91	5.98	6.43	6.92	16.00	16.46	16.52	16.97	17.46
	12H	6.39	6.79	6.90	7.28	7.86	16.05	16.45	16.56	16.94	17.51
12H	4H	3.06	3.60	3.54	4.09	4.56	15.95	16.50	16.44	16.98	17.46
	6H	4.96	5.42	5.48	5.93	6.42	15.95	16.40	16.47	16.92	17.41
	8H	6.10	6.50	6.61	6.99	7.56	15.99	16.39	16.51	16.89	17.46