

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: P1062206

Luminaire Tested: S125RDR-H850D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062206  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H850D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

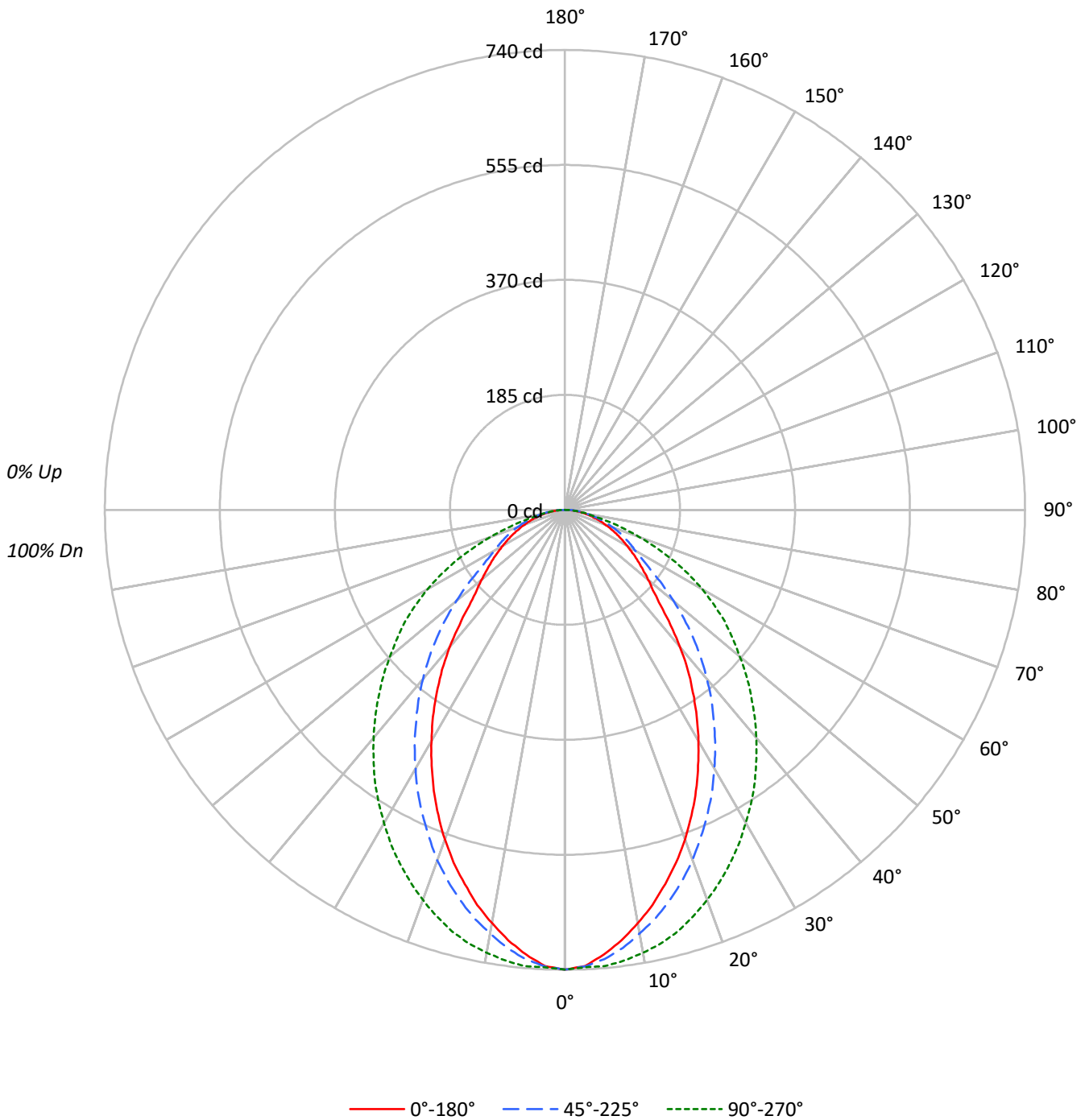
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1386.7 lumens  
Efficiency: N/A  
Efficacy: 59.0 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
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									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	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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86													86															
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74													74															
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64													64															
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44													44															
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40													40															
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36													36															
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33													33															
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30													30															

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5093	5093	5093
5°	4965	5016	5092
10°	4722	4841	5058
15°	4441	4635	5004
20°	4137	4397	4895
25°	3789	4115	4772
30°	3414	3819	4624
35°	3019	3509	4478
40°	2590	3195	4304
45°	2116	2842	4123
50°	1876	2438	3934
55°	1721	2023	3770
60°	1588	1792	3511
65°	1481	1722	3130
70°	1383	1637	2559
75°	1277	1532	1886
80°	1201	1435	1376
85°	1106	1398	1169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4123 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	4.9
10°-20°	184.4	13.3
20°-30°	253.4	18.3
30°-40°	268.6	19.4
40°-50°	234.5	16.9
50°-60°	178.1	12.8
60°-70°	119.3	8.6
70°-80°	61.5	4.4
80°-90°	18.4	1.3
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°	506.3	36.5
0°-40°	774.9	55.9
0°-60°	1187.4	85.6
0°-90°	1386.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1386.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	718	726	726	731	737	67
15°	623	635	650	679	702	175
25°	499	514	542	587	628	229
35°	359	380	418	477	533	224
45°	217	239	292	361	423	172
55°	143	148	168	248	314	129
65°	91	93	106	141	192	90
75°	48	51	58	61	71	51
85°	14	18	18	16	15	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	739.7	739.7	739.7	739.7	739.7
2.5°	734.6	739.7	735.3	735.3	736.8
5°	718.3	725.7	725.7	730.9	736.8
7.5°	698.4	706.5	710.9	722.7	731.6
10°	675.4	684.3	692.4	710.2	723.5
12.5°	651.1	660.7	673.2	696.1	714.6
15°	623.0	634.8	650.3	679.1	702.0
17.5°	594.9	606.7	625.9	659.9	685.8
20°	564.6	577.2	600.1	637.0	668.1
22.5°	532.1	546.1	570.5	612.6	648.8
25°	498.8	514.3	541.7	586.8	628.1
27.5°	464.1	482.6	512.1	560.2	606.0
30°	429.4	447.8	480.3	532.8	581.6
32.5°	394.6	414.6	450.0	505.5	557.9
35°	359.2	379.8	417.5	476.7	532.8
37.5°	324.4	345.1	387.2	448.6	505.5
40°	288.2	309.6	355.5	419.8	478.9
42.5°	251.3	274.2	323.7	390.2	451.5
45°	217.3	238.7	291.9	361.4	423.4
47.5°	192.1	206.2	260.1	331.8	396.1
50°	175.1	182.5	227.6	303.0	367.3
52.5°	158.1	164.1	197.3	273.4	339.9
55°	143.4	147.8	168.5	247.6	314.1
57.5°	128.6	133.0	146.3	221.7	283.8
60°	115.3	119.0	130.1	194.4	255.0
62.5°	102.7	105.7	117.5	168.5	223.9
65°	90.9	93.1	105.7	141.1	192.1
67.5°	79.1	81.3	93.9	115.3	158.1
70°	68.7	69.5	81.3	93.9	127.1
72.5°	58.4	59.1	68.7	76.1	97.5
75°	48.0	51.0	57.6	61.3	70.9
77.5°	39.2	42.9	46.6	48.0	48.0
80°	30.3	34.7	36.2	36.2	34.7
82.5°	22.2	25.9	26.6	25.1	23.6
85°	14.0	17.7	17.7	16.3	14.8
87.5°	6.7	9.6	9.6	8.9	6.7
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	12.26	13.76	12.63	14.07	14.39	16.19	17.69	16.56	18.00	18.32
	3H	13.83	15.18	14.21	15.50	15.87	17.61	18.95	17.99	19.28	19.65
	4H	14.45	15.71	14.85	16.06	16.43	18.03	19.29	18.43	19.63	20.01
	6H	14.94	16.11	15.36	16.47	16.86	18.24	19.41	18.66	19.77	20.17
	8H	15.12	16.22	15.54	16.61	17.02	18.30	19.41	18.73	19.80	20.20
	12H	15.24	16.30	15.67	16.68	17.11	18.34	19.40	18.77	19.78	20.21
4H	2H	13.00	14.26	13.40	14.61	14.99	16.32	17.58	16.72	17.92	18.30
	3H	14.78	15.82	15.19	16.22	16.63	17.93	18.97	18.34	19.37	19.77
	4H	15.51	16.46	15.95	16.87	17.31	18.45	19.39	18.89	19.81	20.25
	6H	16.15	16.97	16.61	17.41	17.87	18.79	19.61	19.25	20.06	20.52
	8H	16.38	17.14	16.84	17.59	18.06	18.89	19.66	19.36	20.10	20.57
	12H	16.55	17.24	17.04	17.71	18.19	18.97	19.65	19.45	20.13	20.60
8H	4H	15.91	16.68	16.38	17.12	17.59	18.56	19.32	19.02	19.77	20.24
	6H	16.70	17.33	17.20	17.83	18.30	19.00	19.63	19.50	20.12	20.60
	8H	17.03	17.59	17.54	18.10	18.59	19.16	19.72	19.67	20.23	20.72
	12H	17.30	17.80	17.81	18.29	18.86	19.29	19.79	19.80	20.28	20.85
12H	4H	15.96	16.64	16.44	17.12	17.59	18.56	19.24	19.04	19.72	20.19
	6H	16.78	17.35	17.30	17.86	18.35	19.01	19.58	19.53	20.09	20.58
	8H	17.18	17.68	17.69	18.17	18.74	19.22	19.72	19.73	20.22	20.78