

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: P1062242

Luminaire Tested: S125RDR-H850D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062242
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-H850D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

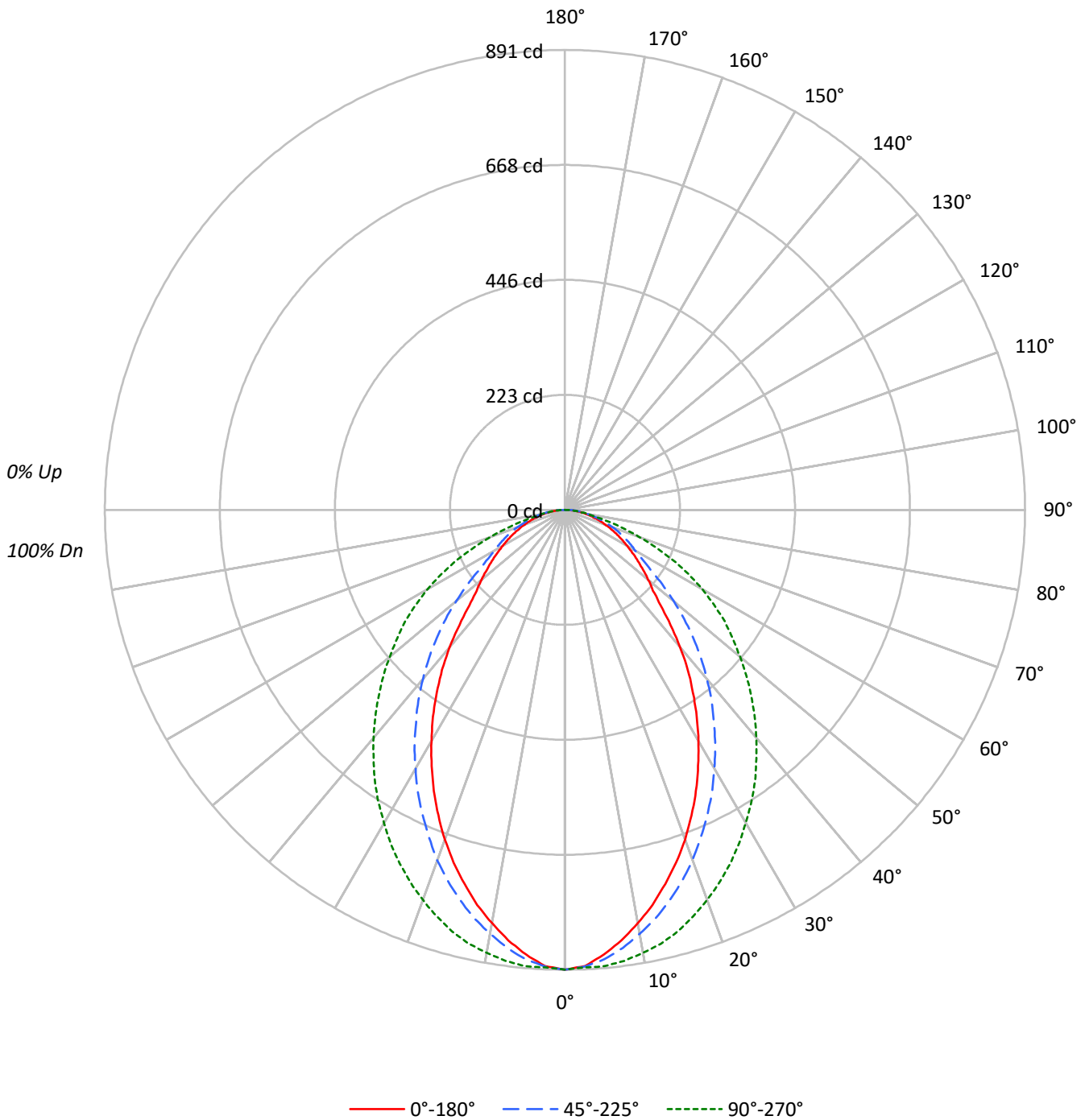
Lumens per Lamp: N/A
Luminaire Lumens: 1670.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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	
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				
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50				
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44				
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40				
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36				
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6133	6133	6133
5°	5978	6040	6133
10°	5687	5830	6092
15°	5348	5583	6027
20°	4982	5295	5895
25°	4564	4956	5747
30°	4111	4599	5568
35°	3635	4226	5394
40°	3120	3848	5183
45°	2547	3423	4965
50°	2259	2936	4738
55°	2073	2436	4540
60°	1911	2156	4228
65°	1784	2074	3770
70°	1667	1971	3082
75°	1538	1846	2272
80°	1447	1729	1657
85°	1335	1691	1406

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4965 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	4.9
10°-20°	222.1	13.3
20°-30°	305.2	18.3
30°-40°	323.4	19.4
40°-50°	282.3	16.9
50°-60°	214.5	12.8
60°-70°	143.7	8.6
70°-80°	74.1	4.4
80°-90°	22.2	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°	609.7	36.5
0°-40°	933.1	55.9
0°-60°	1430.0	85.6
0°-90°	1670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	865	874	874	880	887	81
15°	750	764	783	818	846	210
25°	601	619	652	707	756	275
35°	432	457	503	574	642	270
45°	262	288	352	435	510	207
55°	173	178	203	298	378	155
65°	110	112	127	170	231	109
75°	58	61	69	74	85	62
85°	17	21	21	20	18	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	890.8	890.8	890.8	890.8	890.8
2.5°	884.6	890.8	885.5	885.5	887.3
5°	865.0	873.9	873.9	880.2	887.3
7.5°	841.0	850.8	856.1	870.4	881.1
10°	813.4	824.1	833.9	855.2	871.3
12.5°	784.0	795.6	810.7	838.3	860.6
15°	750.2	764.5	783.2	817.9	845.5
17.5°	716.4	730.7	753.8	794.7	825.9
20°	679.9	695.1	722.6	767.1	804.5
22.5°	640.8	657.7	687.0	737.8	781.4
25°	600.7	619.4	652.3	706.6	756.5
27.5°	558.9	581.1	616.7	674.6	729.8
30°	517.1	539.3	578.5	641.7	700.4
32.5°	475.2	499.3	542.0	608.7	671.9
35°	432.5	457.4	502.8	574.0	641.7
37.5°	390.7	415.6	466.3	540.2	608.7
40°	347.1	372.9	428.1	505.5	576.7
42.5°	302.6	330.2	389.8	469.9	543.8
45°	261.6	287.5	351.5	435.2	509.9
47.5°	231.4	248.3	313.3	399.6	477.0
50°	210.9	219.8	274.1	364.9	442.3
52.5°	190.4	197.6	237.6	329.3	409.4
55°	172.7	178.0	202.9	298.1	378.2
57.5°	154.9	160.2	176.2	267.0	341.7
60°	138.8	143.3	156.6	234.1	307.0
62.5°	123.7	127.3	141.5	202.9	269.7
65°	109.5	112.1	127.3	170.0	231.4
67.5°	95.2	97.9	113.0	138.8	190.4
70°	82.8	83.7	97.9	113.0	153.1
72.5°	70.3	71.2	82.8	91.7	117.5
75°	57.8	61.4	69.4	73.9	85.4
77.5°	47.2	51.6	56.1	57.8	57.8
80°	36.5	41.8	43.6	43.6	41.8
82.5°	26.7	31.1	32.0	30.3	28.5
85°	16.9	21.4	21.4	19.6	17.8
87.5°	8.0	11.6	11.6	10.7	8.0
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	12.91	14.41	13.27	14.72	15.03	16.84	18.33	17.20	18.65	18.96
	3H	14.48	15.82	14.86	16.15	16.51	18.26	19.60	18.64	19.93	20.29
	4H	15.09	16.35	15.49	16.70	17.08	18.67	19.93	19.07	20.28	20.66
	6H	15.59	16.75	16.00	17.12	17.51	18.89	20.05	19.30	20.42	20.81
	8H	15.76	16.87	16.19	17.26	17.66	18.95	20.05	19.37	20.44	20.85
	12H	15.89	16.94	16.32	17.33	17.76	18.98	20.04	19.41	20.42	20.85
4H	2H	13.65	14.91	14.05	15.25	15.63	16.96	18.22	17.36	18.57	18.95
	3H	15.43	16.47	15.84	16.87	17.27	18.57	19.62	18.98	20.02	20.42
	4H	16.16	17.10	16.59	17.52	17.96	19.10	20.04	19.53	20.46	20.89
	6H	16.80	17.61	17.25	18.06	18.52	19.44	20.26	19.90	20.70	21.16
	8H	17.02	17.79	17.49	18.23	18.70	19.54	20.31	20.00	20.75	21.22
	12H	17.20	17.88	17.68	18.36	18.83	19.61	20.30	20.10	20.78	21.25
8H	4H	16.56	17.33	17.02	17.77	18.24	19.21	19.97	19.67	20.41	20.88
	6H	17.35	17.98	17.84	18.47	18.95	19.64	20.28	20.14	20.77	21.25
	8H	17.67	18.24	18.19	18.75	19.24	19.80	20.37	20.32	20.88	21.37
	12H	17.95	18.45	18.46	18.94	19.50	19.94	20.44	20.45	20.93	21.50
12H	4H	16.60	17.29	17.09	17.77	18.24	19.21	19.89	19.69	20.37	20.84
	6H	17.43	18.00	17.94	18.51	19.00	19.66	20.23	20.17	20.74	21.23
	8H	17.83	18.33	18.34	18.82	19.38	19.87	20.37	20.38	20.86	21.43