

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: P1062188

Luminaire Tested: S125RDR-H850D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062188
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-H850D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

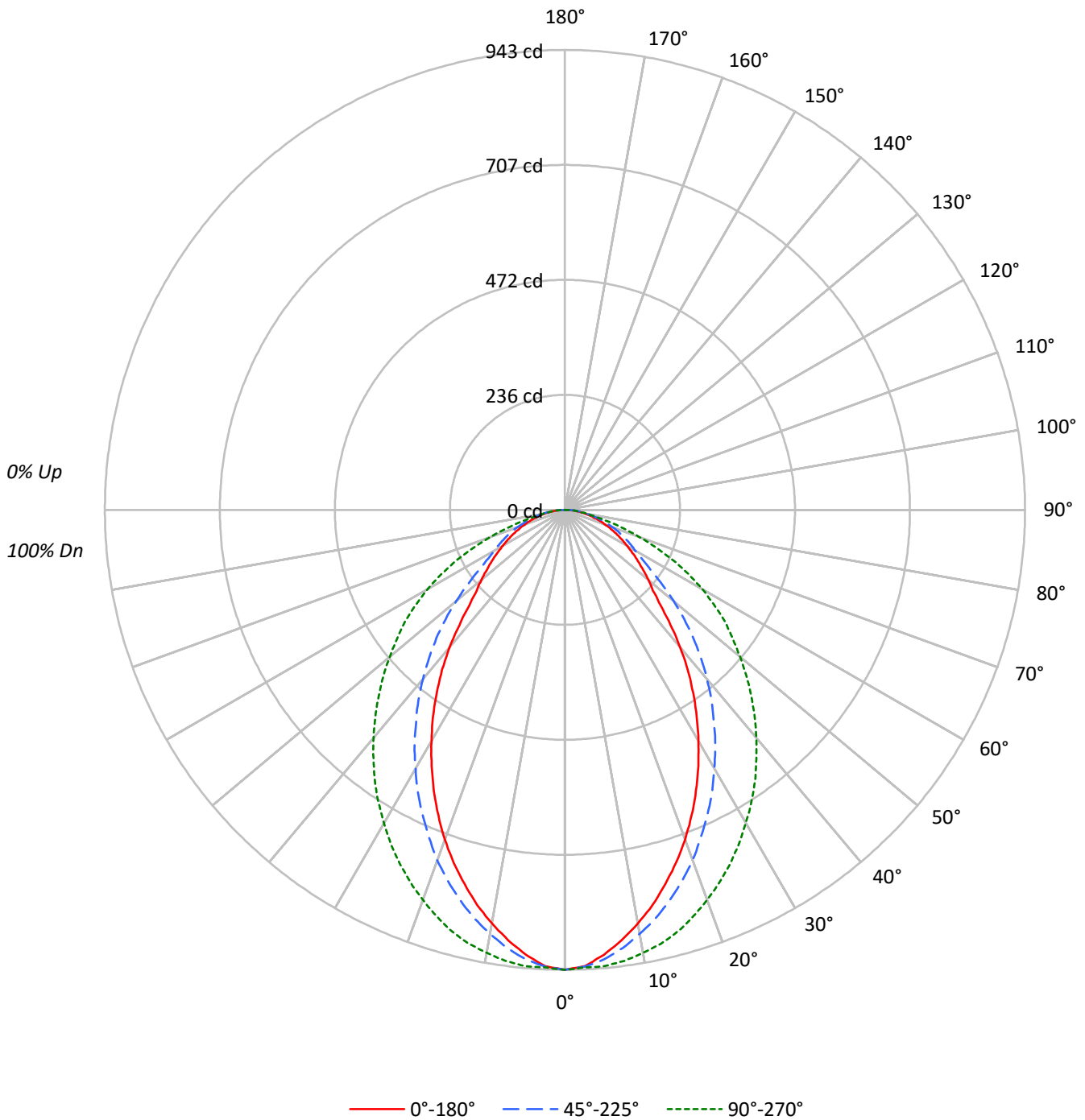
Lumens per Lamp: N/A
Luminaire Lumens: 1767.8 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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																		
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																												
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°	6493	6493	6493
5°	6329	6394	6491
10°	6020	6171	6448
15°	5661	5909	6380
20°	5273	5605	6240
25°	4831	5246	6084
30°	4351	4868	5894
35°	3848	4474	5709
40°	3302	4072	5487
45°	2697	3623	5256
50°	2392	3108	5015
55°	2194	2578	4806
60°	2024	2283	4475
65°	1888	2195	3990
70°	1763	2086	3261
75°	1628	1955	2405
80°	1531	1832	1757
85°	1414	1785	1485

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5256 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	4.9
10°-20°	235.1	13.3
20°-30°	323.1	18.3
30°-40°	342.4	19.4
40°-50°	298.9	16.9
50°-60°	227.1	12.8
60°-70°	152.1	8.6
70°-80°	78.4	4.4
80°-90°	23.5	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°	645.4	36.5
0°-40°	987.8	55.9
0°-60°	1513.7	85.6
0°-90°	1767.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1767.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	916	925	925	932	939	86
15°	794	809	829	866	895	223
25°	636	656	690	748	801	291
35°	458	484	532	608	679	285
45°	277	304	372	461	540	219
55°	183	188	215	316	400	164
65°	116	119	135	180	245	115
75°	61	65	74	78	90	66
85°	18	23	23	21	19	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.0	943.0	943.0	943.0	943.0
2.5°	936.4	943.0	937.4	937.4	939.2
5°	915.7	925.1	925.1	931.7	939.2
7.5°	890.3	900.6	906.3	921.3	932.6
10°	861.0	872.4	882.7	905.3	922.3
12.5°	830.0	842.2	858.2	887.4	911.0
15°	794.2	809.2	829.0	865.8	895.0
17.5°	758.4	773.4	797.9	841.3	874.2
20°	719.7	735.8	765.0	812.1	851.6
22.5°	678.3	696.2	727.3	781.0	827.1
25°	635.9	655.7	690.5	748.0	800.8
27.5°	591.6	615.2	652.9	714.1	772.5
30°	547.3	570.9	612.3	679.2	741.4
32.5°	503.1	528.5	573.7	644.4	711.3
35°	457.8	484.2	532.3	607.6	679.2
37.5°	413.6	439.9	493.6	571.8	644.4
40°	367.4	394.7	453.1	535.1	610.5
42.5°	320.3	349.5	412.6	497.4	575.6
45°	277.0	304.3	372.1	460.7	539.8
47.5°	244.9	262.8	331.6	423.0	504.9
50°	223.3	232.7	290.2	386.2	468.2
52.5°	201.6	209.1	251.5	348.6	433.4
55°	182.8	188.4	214.8	315.6	400.4
57.5°	163.9	169.6	186.5	282.6	361.8
60°	147.0	151.7	165.8	247.8	325.0
62.5°	130.9	134.7	149.8	214.8	285.4
65°	115.9	118.7	134.7	179.9	244.9
67.5°	100.8	103.6	119.6	147.0	201.6
70°	87.6	88.6	103.6	119.6	162.0
72.5°	74.4	75.4	87.6	97.0	124.4
75°	61.2	65.0	73.5	78.2	90.4
77.5°	49.9	54.6	59.4	61.2	61.2
80°	38.6	44.3	46.2	46.2	44.3
82.5°	28.3	33.0	33.9	32.0	30.1
85°	17.9	22.6	22.6	20.7	18.8
87.5°	8.5	12.2	12.2	11.3	8.5
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	13.11	14.60	13.47	14.92	15.23	17.03	18.53	17.40	18.84	19.16
	3H	14.68	16.02	15.06	16.35	16.71	18.46	19.80	18.83	20.13	20.49
	4H	15.29	16.55	15.69	16.90	17.28	18.87	20.13	19.27	20.48	20.86
	6H	15.79	16.95	16.20	17.31	17.71	19.09	20.25	19.50	20.62	21.01
	8H	15.96	17.07	16.39	17.46	17.86	19.15	20.25	19.57	20.64	21.04
	12H	16.08	17.14	16.51	17.52	17.95	19.18	20.24	19.61	20.62	21.05
4H	2H	13.84	15.10	14.24	15.45	15.83	17.16	18.42	17.56	18.77	19.15
	3H	15.62	16.67	16.03	17.07	17.47	18.77	19.81	19.18	20.21	20.62
	4H	16.36	17.30	16.79	17.71	18.15	19.30	20.24	19.73	20.65	21.09
	6H	16.99	17.81	17.45	18.25	18.71	19.64	20.46	20.10	20.90	21.36
	8H	17.22	17.99	17.69	18.43	18.90	19.74	20.50	20.20	20.95	21.41
	12H	17.40	18.08	17.88	18.56	19.03	19.81	20.49	20.29	20.97	21.44
8H	4H	16.76	17.52	17.22	17.97	18.44	19.40	20.17	19.87	20.61	21.08
	6H	17.55	18.18	18.04	18.67	19.15	19.84	20.47	20.34	20.97	21.44
	8H	17.87	18.44	18.38	18.95	19.44	20.00	20.57	20.51	21.08	21.57
	12H	18.14	18.65	18.65	19.14	19.70	20.14	20.64	20.65	21.13	21.69
12H	4H	16.80	17.49	17.29	17.96	18.44	19.40	20.09	19.89	20.56	21.04
	6H	17.63	18.20	18.14	18.71	19.19	19.86	20.43	20.37	20.94	21.42
	8H	18.02	18.53	18.53	19.02	19.58	20.07	20.57	20.58	21.06	21.63