

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: P1062179

Luminaire Tested: S125RDR-H850D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062179
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-H850D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

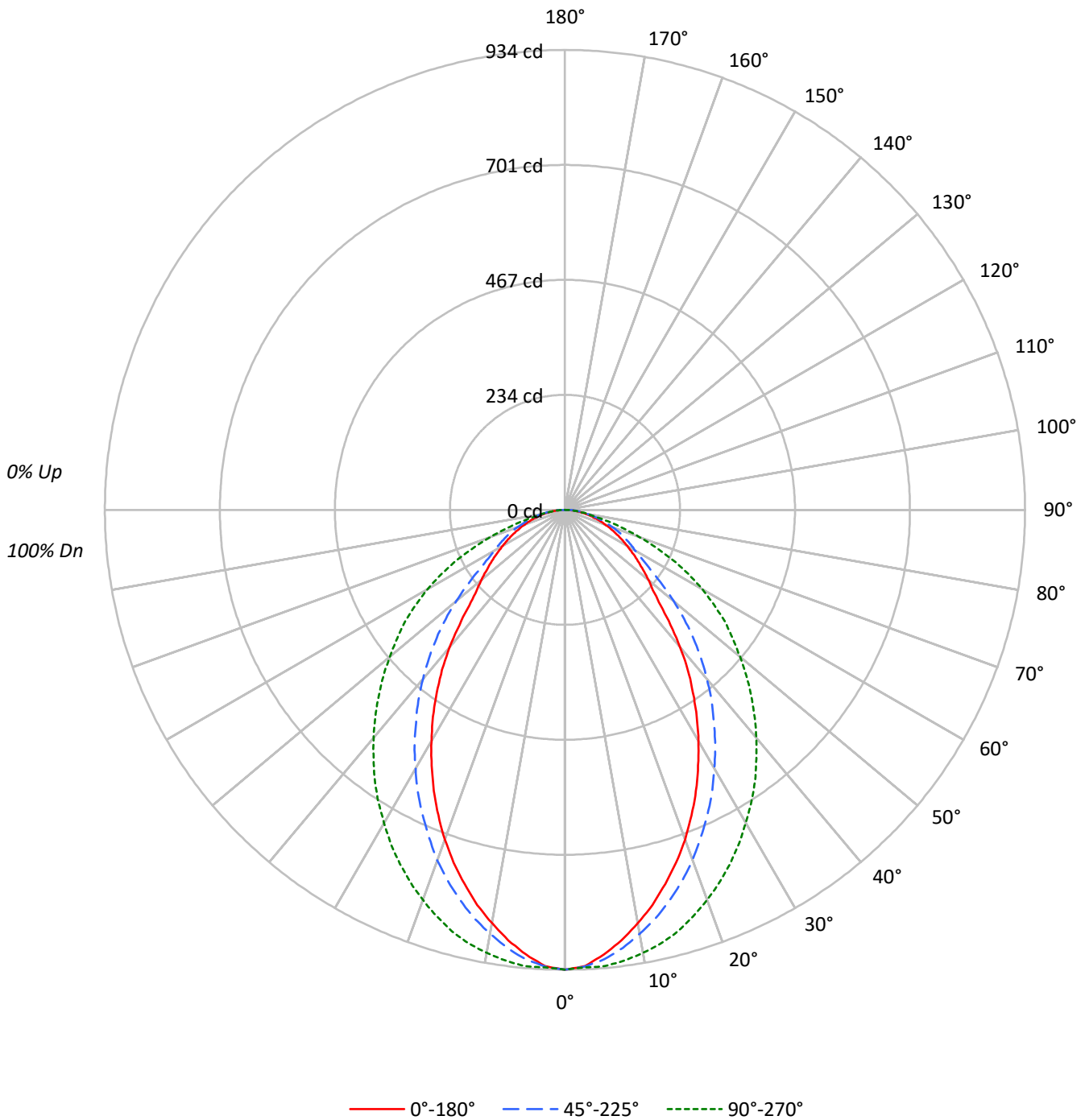
Lumens per Lamp: N/A
Luminaire Lumens: 1750.5 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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				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°	6429	6429	6429
5°	6267	6332	6428
10°	5961	6111	6385
15°	5606	5851	6317
20°	5222	5550	6179
25°	4784	5195	6024
30°	4309	4821	5837
35°	3811	4430	5653
40°	3270	4033	5433
45°	2671	3588	5205
50°	2368	3077	4966
55°	2173	2553	4760
60°	2004	2261	4431
65°	1869	2173	3951
70°	1747	2065	3231
75°	1612	1937	2384
80°	1515	1812	1737
85°	1398	1770	1477

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5205 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	4.9
10°-20°	232.8	13.3
20°-30°	319.9	18.3
30°-40°	339.0	19.4
40°-50°	296.0	16.9
50°-60°	224.8	12.8
60°-70°	150.6	8.6
70°-80°	77.7	4.4
80°-90°	23.3	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°	639.1	36.5
0°-40°	978.1	55.9
0°-60°	1498.9	85.6
0°-90°	1750.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1750.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	907	916	916	923	930	85
15°	786	801	821	857	886	221
25°	630	649	684	741	793	289
35°	453	480	527	602	673	283
45°	274	301	368	456	534	217
55°	181	187	213	312	396	162
65°	115	118	133	178	242	114
75°	61	64	73	77	90	65
85°	18	22	22	20	19	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.8	933.8	933.8	933.8	933.8
2.5°	927.3	933.8	928.2	928.2	930.1
5°	906.7	916.1	916.1	922.6	930.1
7.5°	881.6	891.8	897.4	912.3	923.5
10°	852.6	863.8	874.1	896.5	913.3
12.5°	821.9	834.0	849.8	878.8	902.1
15°	786.4	801.3	820.9	857.3	886.2
17.5°	751.0	765.9	790.1	833.0	865.7
20°	712.7	728.6	757.5	804.1	843.3
22.5°	671.7	689.4	720.2	773.3	819.1
25°	629.7	649.3	683.8	740.7	792.9
27.5°	585.8	609.2	646.5	707.1	764.9
30°	542.0	565.3	606.4	672.6	734.2
32.5°	498.1	523.3	568.1	638.1	704.3
35°	453.4	479.5	527.1	601.7	672.6
37.5°	409.5	435.6	488.8	566.2	638.1
40°	363.8	390.9	448.7	529.9	604.5
42.5°	317.2	346.1	408.6	492.6	570.0
45°	274.3	301.3	368.5	456.2	534.5
47.5°	242.5	260.3	328.4	418.9	500.0
50°	221.1	230.4	287.3	382.5	463.6
52.5°	199.6	207.1	249.1	345.2	429.1
55°	181.0	186.6	212.7	312.5	396.5
57.5°	162.3	167.9	184.7	279.9	358.2
60°	145.5	150.2	164.2	245.3	321.8
62.5°	129.7	133.4	148.3	212.7	282.7
65°	114.7	117.5	133.4	178.2	242.5
67.5°	99.8	102.6	118.5	145.5	199.6
70°	86.8	87.7	102.6	118.5	160.5
72.5°	73.7	74.6	86.8	96.1	123.1
75°	60.6	64.4	72.8	77.4	89.6
77.5°	49.4	54.1	58.8	60.6	60.6
80°	38.2	43.8	45.7	45.7	43.8
82.5°	28.0	32.7	33.6	31.7	29.9
85°	17.7	22.4	22.4	20.5	18.7
87.5°	8.4	12.1	12.1	11.2	8.4
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	13.07	14.57	13.44	14.88	15.20	17.00	18.50	17.37	18.81	19.13
	3H	14.64	15.99	15.02	16.31	16.68	18.42	19.76	18.80	20.09	20.45
	4H	15.26	16.52	15.66	16.86	17.24	18.84	20.10	19.24	20.44	20.82
	6H	15.75	16.91	16.16	17.28	17.67	19.05	20.22	19.47	20.58	20.98
	8H	15.92	17.03	16.35	17.42	17.82	19.11	20.22	19.54	20.61	21.01
	12H	16.05	17.11	16.48	17.49	17.92	19.15	20.21	19.58	20.59	21.02
4H	2H	13.81	15.07	14.21	15.42	15.80	17.13	18.39	17.53	18.73	19.11
	3H	15.59	16.63	16.00	17.03	17.43	18.74	19.78	19.15	20.18	20.58
	4H	16.32	17.26	16.76	17.68	18.12	19.26	20.20	19.70	20.62	21.06
	6H	16.96	17.78	17.42	18.22	18.68	19.60	20.42	20.06	20.87	21.33
	8H	17.19	17.95	17.65	18.40	18.86	19.70	20.47	20.17	20.91	21.38
	12H	17.36	18.04	17.84	18.52	18.99	19.78	20.46	20.26	20.94	21.41
8H	4H	16.72	17.49	17.19	17.93	18.40	19.37	20.13	19.83	20.58	21.05
	6H	17.51	18.14	18.01	18.63	19.11	19.81	20.44	20.31	20.93	21.41
	8H	17.83	18.40	18.35	18.91	19.40	19.97	20.53	20.48	21.04	21.53
	12H	18.11	18.61	18.62	19.10	19.67	20.10	20.60	20.61	21.10	21.66
12H	4H	16.77	17.45	17.25	17.93	18.40	19.37	20.05	19.85	20.53	21.00
	6H	17.59	18.16	18.11	18.67	19.16	19.82	20.39	20.34	20.90	21.39
	8H	17.99	18.49	18.50	18.98	19.55	20.03	20.53	20.54	21.03	21.59