

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: P1062173

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062173
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-H850D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

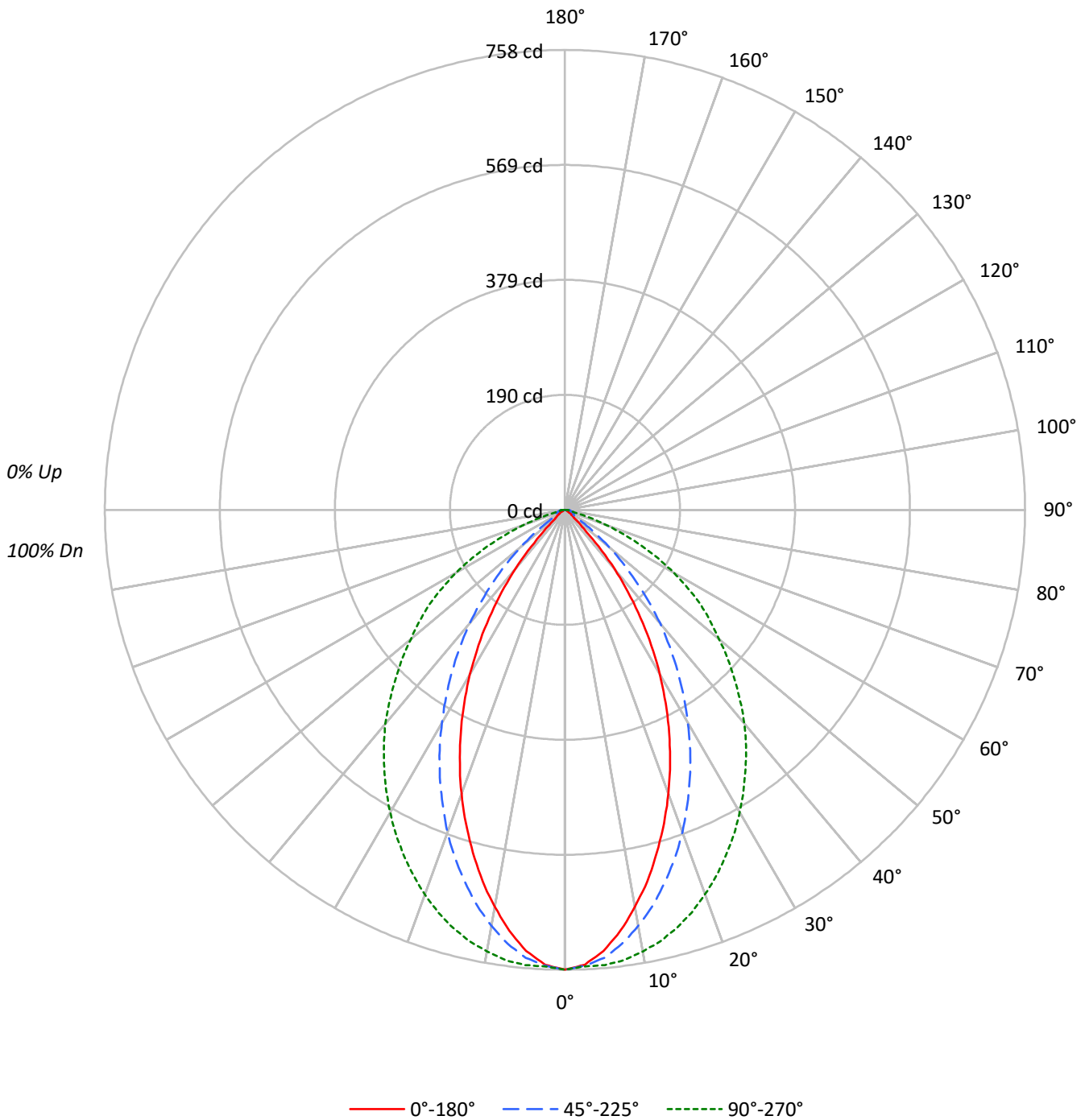
Lumens per Lamp: N/A
Luminaire Lumens: 974.7 lumens
Efficiency: N/A
Efficacy: 41.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	5218	5218	5218
5°	5044	5121	5205
10°	4646	4867	5167
15°	4171	4530	5082
20°	3651	4143	4944
25°	3084	3701	4772
30°	2485	3220	4578
35°	1827	2714	4362
40°	1141	2189	4135
45°	427	1599	3844
50°	200	999	3549
55°	145	414	3282
60°	103	219	2839
65°	60	259	2250
70°	56	300	1427
75°	74	298	447
80°	111	369	333
85°	221	592	442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3844 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	7.1
10°-20°	179.9	18.5
20°-30°	229.2	23.5
30°-40°	213.3	21.9
40°-50°	146.2	15.0
50°-60°	80.5	8.3
60°-70°	38.1	3.9
70°-80°	12.0	1.2
80°-90°	6.1	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°	478.5	49.1
0°-40°	691.8	71.0
0°-60°	918.5	94.2
0°-90°	974.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	974.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	730	739	741	747	753	68
15°	585	604	636	683	713	163
25°	406	431	487	566	628	185
35°	217	248	323	429	519	135
45°	44	74	164	291	395	42
55°	12	14	34	162	273	11
65°	4	5	16	60	138	4
75°	3	5	11	12	17	3
85°	3	6	8	6	6	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.8	757.8	757.8	757.8	757.8
2.5°	750.3	757.8	752.2	752.2	753.1
5°	729.8	739.1	741.0	746.6	753.1
7.5°	699.9	712.1	721.4	737.3	748.5
10°	664.5	679.4	696.2	722.3	739.1
12.5°	627.1	643.0	668.2	704.6	727.9
15°	585.1	603.8	635.5	683.1	713.0
17.5°	542.2	562.7	601.9	657.9	695.3
20°	498.3	519.8	565.5	628.1	674.7
22.5°	452.6	476.0	526.3	597.3	652.3
25°	406.0	431.2	487.1	565.5	628.1
27.5°	359.3	385.4	447.0	532.9	602.9
30°	312.6	339.7	405.0	499.3	575.8
32.5°	265.0	294.9	364.0	465.7	547.8
35°	217.4	248.2	322.9	429.3	518.9
37.5°	170.8	202.5	282.8	394.8	489.9
40°	126.9	158.7	243.6	360.2	460.1
42.5°	82.1	115.7	202.5	324.8	427.4
45°	43.9	73.7	164.2	291.2	394.8
47.5°	23.3	39.2	127.9	257.6	364.0
50°	18.7	21.5	93.3	224.0	331.3
52.5°	14.9	16.8	59.7	189.4	302.4
55°	12.1	14.0	34.5	162.4	273.4
57.5°	9.3	11.2	19.6	135.3	239.8
60°	7.5	8.4	15.9	108.3	206.2
62.5°	4.7	6.5	15.9	84.0	172.6
65°	3.7	4.7	15.9	59.7	138.1
67.5°	3.7	3.7	15.9	39.2	103.6
70°	2.8	2.8	14.9	25.2	70.9
72.5°	2.8	2.8	13.1	16.8	41.1
75°	2.8	4.7	11.2	12.1	16.8
77.5°	2.8	7.5	10.3	10.3	9.3
80°	2.8	7.5	9.3	8.4	8.4
82.5°	2.8	7.5	7.5	7.5	6.5
85°	2.8	6.5	7.5	6.5	5.6
87.5°	2.8	6.5	6.5	6.5	3.7
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	0.00	0.00	0.00	0.00	0.00	14.78	16.07	15.15	16.38	16.70
	3H	0.00	0.00	0.00	0.00	0.00	15.57	16.71	15.95	17.04	17.40
	4H	0.00	0.00	0.00	0.00	0.00	15.60	16.66	16.00	17.01	17.39
	6H	0.00	0.00	0.00	0.00	0.21	15.55	16.52	15.97	16.90	17.29
	8H	0.00	0.07	0.00	0.47	0.87	15.53	16.45	15.96	16.84	17.25
	12H	0.00	0.78	0.34	1.16	1.59	15.51	16.39	15.94	16.77	17.20
4H	2H	0.00	0.00	0.00	0.00	0.37	14.57	15.62	14.97	15.98	16.36
	3H	0.00	0.30	0.00	0.71	1.11	15.39	16.26	15.81	16.66	17.07
	4H	0.04	0.81	0.48	1.23	1.68	15.43	16.20	15.87	16.62	17.06
	6H	1.55	2.21	2.01	2.66	3.12	15.42	16.08	15.88	16.53	17.00
	8H	2.29	2.91	2.76	3.36	3.83	15.40	16.02	15.87	16.47	16.94
	12H	3.03	3.57	3.51	4.06	4.53	15.40	15.95	15.89	16.43	16.91
8H	4H	2.08	2.70	2.55	3.15	3.62	15.32	15.94	15.79	16.38	16.85
	6H	3.83	4.34	4.34	4.84	5.32	15.32	15.82	15.82	16.32	16.80
	8H	4.79	5.24	5.31	5.76	6.25	15.32	15.78	15.85	16.29	16.79
	12H	5.72	6.12	6.23	6.61	7.19	15.37	15.77	15.88	16.26	16.84
12H	4H	2.39	2.93	2.87	3.42	3.89	15.27	15.82	15.76	16.30	16.78
	6H	4.29	4.75	4.81	5.26	5.75	15.27	15.73	15.80	16.24	16.73
	8H	5.43	5.83	5.94	6.32	6.90	15.31	15.71	15.83	16.21	16.78