

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1175386

Luminaire Tested: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

Test Information

Test Method: LM-79-2024
Report Number: P1175386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)
Test Lab: INNOVATION CENTER
Issue Date: 8/18/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

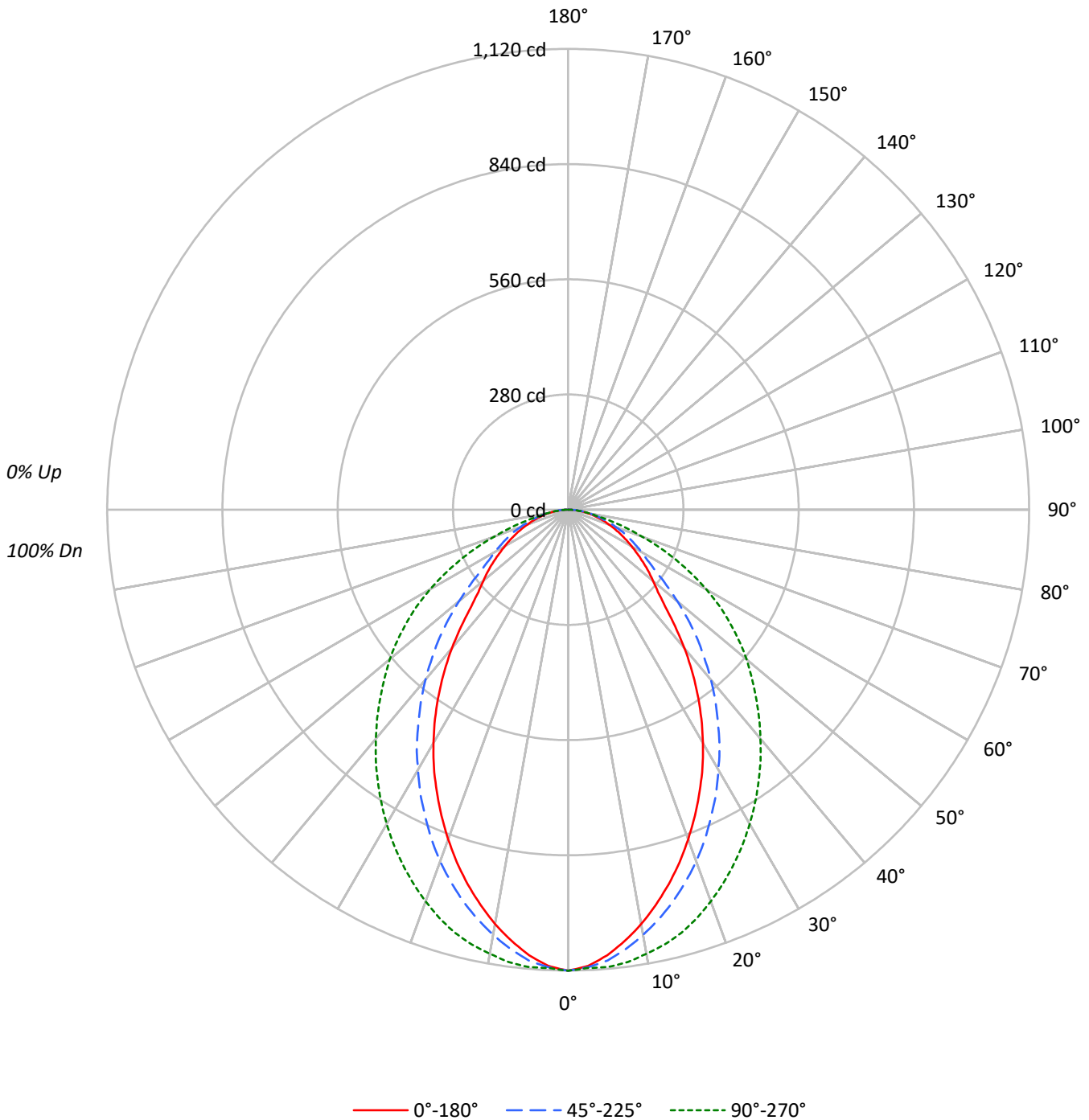
Lumens per Lamp: N/A
Luminaire Lumens: 2111.0 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
Input Voltage (V): 120
Input Current (A_{in}): 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

TEST NUMBER: P1175386

CATALOG NUMBER: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1175386

CATALOG NUMBER: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

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	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	73	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	66	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	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7715	7715	7715
5°	7514	7600	7712
10°	7149	7335	7661
15°	6720	7025	7587
20°	6245	6663	7422
25°	5738	6244	7226
30°	5203	5801	7011
35°	4605	5333	6780
40°	3950	4847	6532
45°	3242	4317	6280
50°	2884	3708	6063
55°	2660	3105	5755
60°	2450	2830	5331
65°	2278	2665	4712
70°	2126	2490	3849
75°	1998	2304	2884
80°	1887	2113	2074
85°	1730	2101	1730

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6280 cd/sqm



TEST NUMBER: P1175386

CATALOG NUMBER: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.7	4.9
10°-20°	279.6	13.2
20°-30°	384.7	18.2
30°-40°	408.0	19.3
40°-50°	357.1	16.9
50°-60°	274.0	13.0
60°-70°	182.5	8.6
70°-80°	93.6	4.4
80°-90°	27.8	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°	768.0	36.4
0°-40°	1176.0	55.7
0°-60°	1807.1	85.6
0°-90°	2111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1087	1102	1100	1107	1116	102
15°	943	964	986	1032	1064	264
25°	755	781	822	891	951	347
35°	548	574	634	728	807	341
45°	333	360	443	554	645	263
55°	222	226	259	384	479	199
65°	140	141	164	215	289	139
75°	75	80	87	91	108	80
85°	22	25	27	26	22	25
90°	0	0	0	0	0	



TEST NUMBER: P1175386

CATALOG NUMBER: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.5	1120.5	1120.5	1120.5	1120.5
2.5°	1110.1	1121.5	1112.9	1113.9	1114.8
5°	1087.2	1101.5	1099.6	1107.2	1115.8
7.5°	1056.8	1072.0	1076.8	1095.8	1109.1
10°	1022.6	1039.7	1049.2	1077.7	1095.8
12.5°	983.6	1003.5	1018.8	1055.9	1082.5
15°	942.7	964.5	985.5	1032.1	1064.4
17.5°	898.9	920.8	948.4	1001.6	1040.6
20°	852.3	876.1	909.4	966.4	1013.0
22.5°	804.7	829.5	867.5	930.3	983.6
25°	755.3	781.0	821.9	891.3	951.2
27.5°	706.8	730.5	778.1	852.3	917.9
30°	654.4	679.2	729.6	811.4	881.8
32.5°	602.1	626.9	684.9	770.5	844.7
35°	547.9	573.6	634.5	727.7	806.6
37.5°	493.7	520.3	587.9	683.9	767.6
40°	439.5	468.0	539.3	640.2	726.7
42.5°	384.3	414.7	489.9	597.4	686.8
45°	332.9	360.5	443.3	553.6	644.9
47.5°	295.8	312.0	393.8	508.9	605.0
50°	269.2	276.8	346.2	466.1	566.0
52.5°	245.4	250.2	299.6	426.1	523.2
55°	221.6	226.4	258.7	384.3	479.4
57.5°	198.8	201.7	228.3	342.4	435.7
60°	177.9	179.8	205.5	300.6	387.1
62.5°	158.9	159.8	183.6	257.8	338.6
65°	139.8	140.8	163.6	215.0	289.2
67.5°	122.7	122.7	144.6	176.0	241.6
70°	105.6	105.6	123.7	142.7	191.2
72.5°	90.4	92.3	104.6	115.1	149.3
75°	75.1	79.9	86.6	91.3	108.4
77.5°	60.9	66.6	69.4	71.3	72.3
80°	47.6	51.4	53.3	54.2	52.3
82.5°	35.2	38.0	39.0	39.0	36.1
85°	21.9	24.7	26.6	25.7	21.9
87.5°	10.5	14.3	15.2	13.3	10.5
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1175386
 CATALOG NUMBER: S125RDRP-S850D850-X4F0-XX-UDD-WVL-W

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	13.72	15.21	14.08	15.53	15.84	17.74	19.24	18.10	19.55	19.87
	3H	15.30	16.65	15.68	16.97	17.34	19.13	20.47	19.50	20.80	21.16
	4H	15.94	17.21	16.34	17.55	17.93	19.53	20.79	19.93	21.14	21.52
	6H	16.45	17.62	16.87	17.99	18.38	19.74	20.90	20.15	21.27	21.66
	8H	16.64	17.74	17.06	18.13	18.53	19.79	20.90	20.22	21.29	21.69
	12H	16.76	17.82	17.19	18.20	18.63	19.83	20.89	20.26	21.27	21.70
4H	2H	14.48	15.74	14.88	16.09	16.47	17.87	19.13	18.27	19.48	19.86
	3H	16.27	17.31	16.68	17.71	18.11	19.44	20.48	19.85	20.89	21.29
	4H	17.03	17.98	17.47	18.39	18.83	19.95	20.89	20.38	21.31	21.74
	6H	17.67	18.49	18.13	18.94	19.40	20.27	21.09	20.73	21.54	22.00
	8H	17.90	18.67	18.37	19.11	19.58	20.37	21.14	20.84	21.58	22.05
	12H	18.08	18.76	18.56	19.24	19.71	20.45	21.13	20.93	21.61	22.08
8H	4H	17.42	18.18	17.88	18.63	19.10	20.05	20.81	20.51	21.26	21.73
	6H	18.20	18.83	18.69	19.32	19.80	20.47	21.10	20.96	21.59	22.07
	8H	18.51	19.08	19.03	19.59	20.08	20.63	21.19	21.14	21.70	22.19
	12H	18.77	19.27	19.28	19.77	20.33	20.76	21.27	21.27	21.76	22.32
12H	4H	17.46	18.14	17.94	18.62	19.09	20.05	20.73	20.53	21.21	21.68
	6H	18.27	18.84	18.78	19.35	19.84	20.48	21.05	20.99	21.56	22.05
	8H	18.65	19.16	19.16	19.65	20.21	20.69	21.19	21.20	21.68	22.25