

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: P1061871

Luminaire Tested: S125RDR-H1090D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-83)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H1090D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

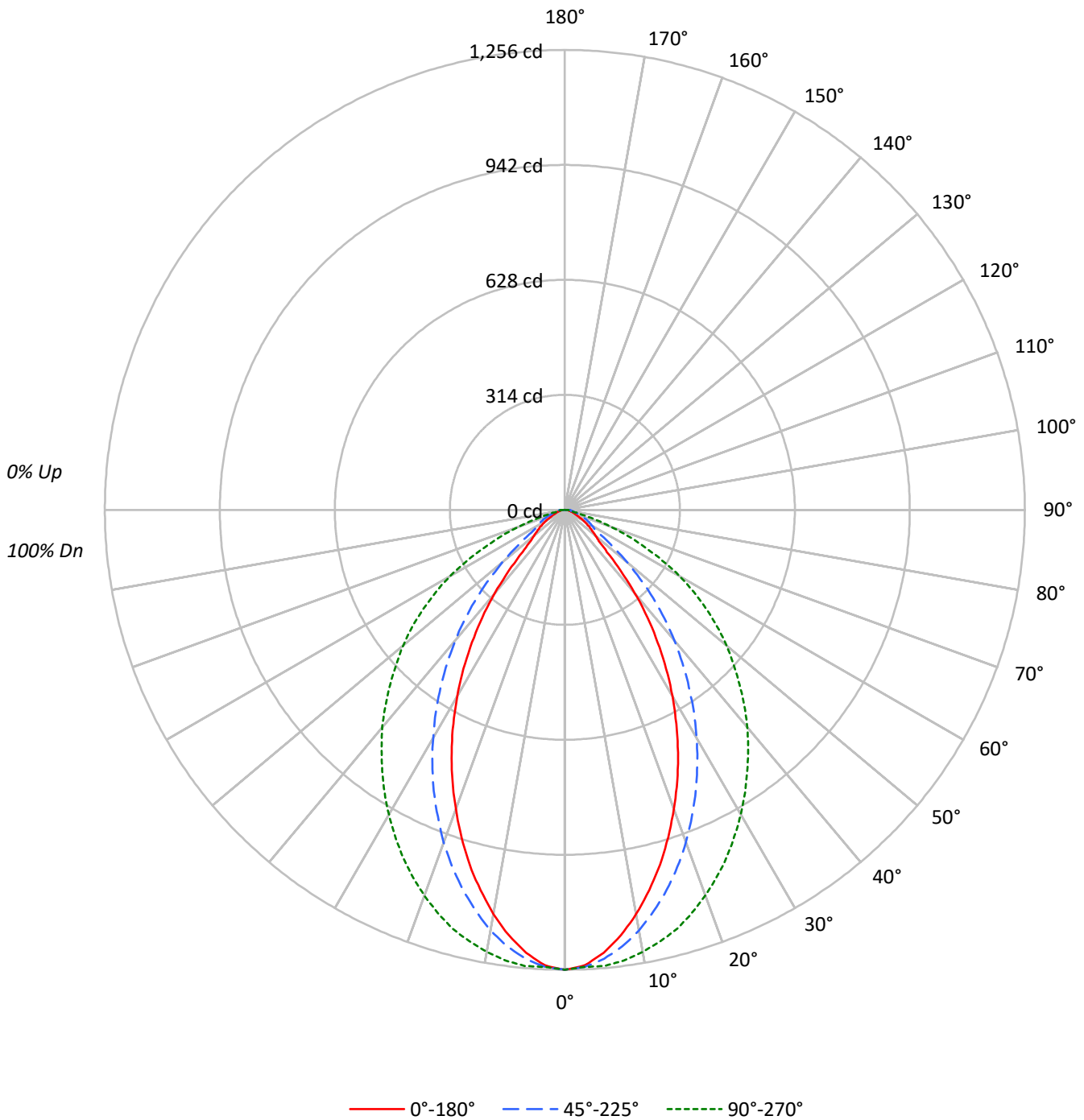
Lumens per Lamp: N/A
Luminaire Lumens: 1819.3 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.15 / 1.02
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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

TEST NUMBER: P1061871

CATALOG NUMBER: S125RDR-H1090D850-X4F0-XX-UDD-SVL-W

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	111	108	104	101	109	105	103	100	101	99	97	98	96	94	94	92	91	89				89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79				79
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70				70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62				62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	66	62	58	56				56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51				51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46				46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42				42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39				39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8648	8648	8648
5°	8395	8505	8644
10°	7839	8156	8567
15°	7154	7659	8439
20°	6376	7080	8215
25°	5556	6429	7950
30°	4669	5720	7640
35°	3713	4970	7303
40°	2675	4175	6970
45°	1585	3315	6563
50°	1172	2359	6176
55°	994	1458	5656
60°	808	1176	4981
65°	630	1087	3936
70°	538	940	2633
75°	497	817	1064
80°	527	849	741
85°	632	1264	845

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6563 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.8	6.4
10°-20°	304.0	16.7
20°-30°	397.4	21.8
30°-40°	387.1	21.3
40°-50°	290.3	16.0
50°-60°	182.0	10.0
60°-70°	94.7	5.2
70°-80°	34.3	1.9
80°-90°	13.6	0.7
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°	817.2	44.9
0°-40°	1204.3	66.2
0°-60°	1676.6	92.2
0°-90°	1819.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1819.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1256	1256	1256	1256	1256	
5°	1215	1231	1231	1240	1251	113
15°	1004	1033	1074	1141	1184	280
25°	731	772	846	961	1046	334
35°	442	488	591	749	869	275
45°	163	211	340	526	674	137
55°	83	87	122	318	471	74
65°	39	41	67	128	242	40
75°	19	25	31	32	40	20
85°	8	13	16	15	11	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1256.0	1256.0	1256.0	1256.0	1256.0
2.5°	1245.3	1257.3	1249.3	1249.3	1249.3
5°	1214.6	1230.6	1230.6	1240.0	1250.6
7.5°	1171.9	1190.6	1202.6	1225.3	1241.3
10°	1121.2	1143.9	1166.5	1203.9	1225.3
12.5°	1063.8	1090.5	1122.5	1174.6	1206.6
15°	1003.7	1033.1	1074.5	1141.2	1183.9
17.5°	938.3	973.0	1022.4	1102.5	1154.5
20°	870.2	904.9	966.3	1057.1	1121.2
22.5°	802.2	839.5	906.3	1009.1	1085.1
25°	731.4	771.5	846.2	961.0	1046.4
27.5°	659.4	700.7	783.5	911.6	1003.7
30°	587.3	630.0	719.4	858.2	961.0
32.5°	515.2	560.6	655.3	803.5	915.6
35°	441.8	488.5	591.3	748.8	868.9
37.5°	371.1	417.8	527.2	692.7	822.2
40°	297.6	348.4	464.5	636.7	775.5
42.5°	225.6	277.6	401.8	580.6	724.8
45°	162.8	210.9	340.4	525.9	674.0
47.5°	125.5	152.2	277.6	469.8	624.7
50°	109.4	117.5	220.2	417.8	576.6
52.5°	94.8	100.1	165.5	369.7	524.5
55°	82.8	86.8	121.5	317.7	471.2
57.5°	69.4	74.7	96.1	266.9	416.4
60°	58.7	61.4	85.4	220.2	361.7
62.5°	48.1	50.7	76.1	173.5	300.3
65°	38.7	41.4	66.7	128.1	241.6
67.5°	32.0	33.4	56.1	90.8	185.5
70°	26.7	28.0	46.7	62.7	130.8
72.5°	22.7	26.7	37.4	45.4	82.8
75°	18.7	25.4	30.7	32.0	40.0
77.5°	16.0	24.0	25.4	25.4	22.7
80°	13.3	20.0	21.4	20.0	18.7
82.5°	10.7	16.0	17.4	17.4	14.7
85°	8.0	13.3	16.0	14.7	10.7
87.5°	5.3	12.0	13.3	12.0	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	7.41	8.76	7.78	9.07	9.39	17.02	18.38	17.39	18.69	19.00
	3H	8.27	9.47	8.65	9.80	10.16	17.87	19.07	18.24	19.40	19.76
	4H	8.69	9.81	9.09	10.16	10.54	17.94	19.06	18.34	19.41	19.79
	6H	9.12	10.15	9.53	10.52	10.91	17.92	18.95	18.34	19.32	19.72
	8H	9.30	10.27	9.73	10.66	11.07	17.91	18.89	18.34	19.28	19.68
	12H	9.46	10.39	9.89	10.78	11.21	17.90	18.83	18.33	19.21	19.64
4H	2H	8.37	9.49	8.77	9.84	10.22	16.89	18.01	17.29	18.36	18.74
	3H	9.43	10.34	9.84	10.75	11.15	17.80	18.72	18.21	19.12	19.52
	4H	9.99	10.81	10.42	11.23	11.67	17.90	18.72	18.33	19.14	19.58
	6H	10.59	11.30	11.05	11.74	12.21	17.93	18.64	18.39	19.08	19.55
	8H	10.83	11.49	11.29	11.93	12.40	17.93	18.59	18.40	19.04	19.51
	12H	11.05	11.64	11.54	12.12	12.59	17.94	18.53	18.43	19.01	19.48
8H	4H	10.46	11.12	10.93	11.57	12.04	17.83	18.49	18.29	18.93	19.40
	6H	11.27	11.81	11.77	12.31	12.79	17.88	18.42	18.38	18.92	19.40
	8H	11.65	12.14	12.17	12.65	13.15	17.91	18.40	18.43	18.91	19.40
	12H	12.04	12.47	12.56	12.97	13.54	17.98	18.41	18.49	18.90	19.47
12H	4H	10.51	11.10	11.00	11.58	12.05	17.79	18.38	18.28	18.86	19.33
	6H	11.40	11.88	11.92	12.40	12.89	17.85	18.33	18.37	18.85	19.34
	8H	11.89	12.31	12.40	12.81	13.38	17.92	18.35	18.43	18.84	19.41