

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: P1059534

Luminaire Tested: S123RDR-H1165D927-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D927-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

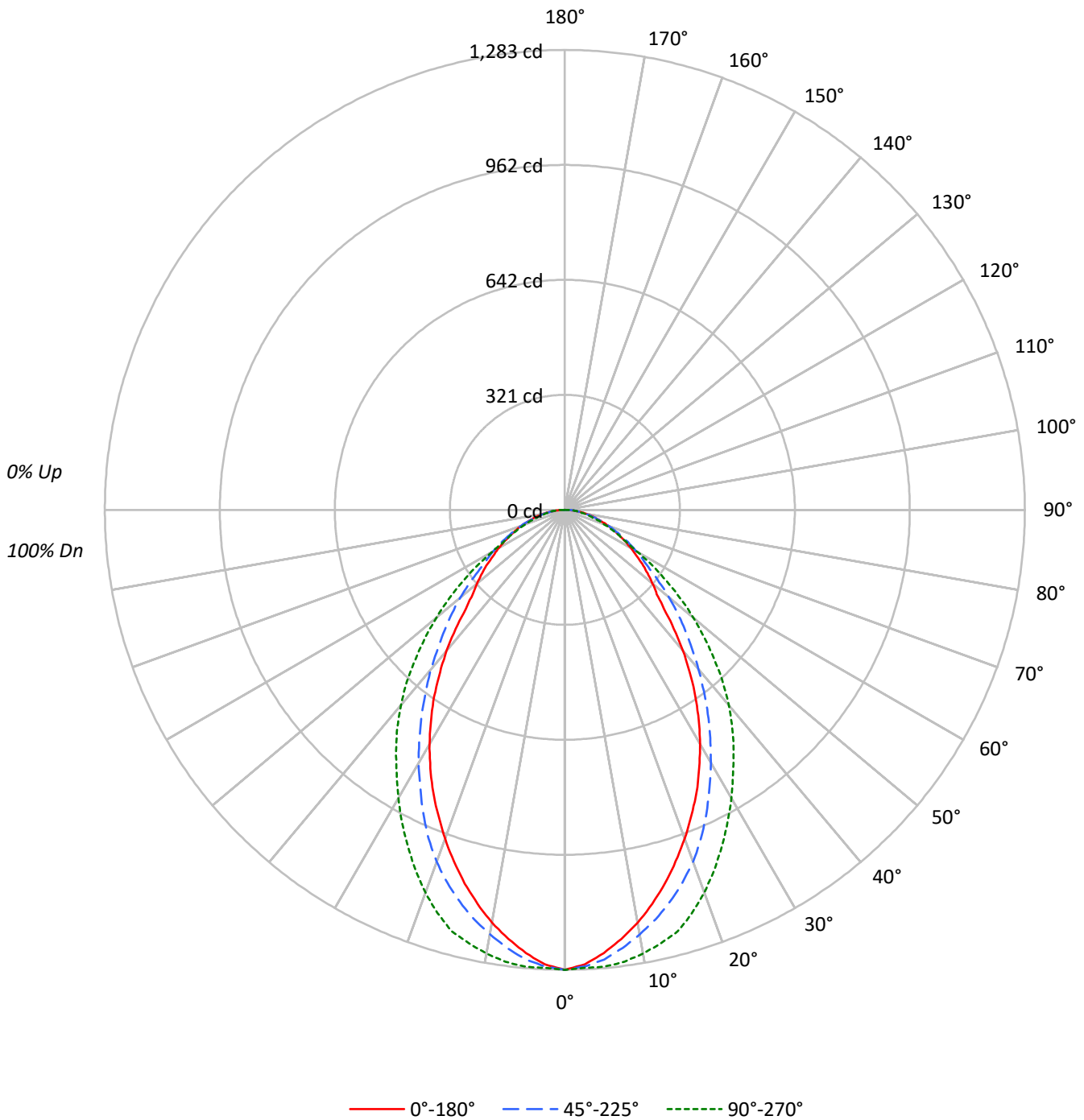
Lumens per Lamp: N/A
Luminaire Lumens: 2255.3 lumens
Efficiency: N/A
Efficacy: 61.8 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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

TEST NUMBER: P1059534

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-WVL-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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15070	15070	15070
5°	14634	14841	15076
10°	13947	14342	14987
15°	13118	13763	14797
20°	12201	13057	14202
25°	11263	12106	13423
30°	10229	11052	12595
35°	9104	9974	11765
40°	7856	8889	10903
45°	6493	7868	9776
50°	5831	6942	8535
55°	5405	5925	7077
60°	4981	5394	5420
65°	4635	4879	4543
70°	4360	4436	3983
75°	4110	3961	3507
80°	3882	3584	3286
85°	3719	4015	3719

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9776 cd/sqm

TEST NUMBER: P1059534

CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.9	5.3
10°-20°	320.3	14.2
20°-30°	433.2	19.2
30°-40°	445.2	19.7
40°-50°	373.9	16.6
50°-60°	268.1	11.9
60°-70°	170.7	7.6
70°-80°	93.8	4.2
80°-90°	31.3	1.4
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°	872.4	38.7
0°-40°	1317.6	58.4
0°-60°	1959.5	86.9
0°-90°	2255.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2255.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1283	1283	1283	1283	1283	
5°	1242	1264	1259	1268	1279	116
15°	1079	1109	1132	1181	1217	302
25°	869	902	934	985	1036	398
35°	635	669	696	758	821	395
45°	391	425	474	542	589	309
55°	264	270	289	328	346	236
65°	167	177	176	166	164	166
75°	91	99	87	81	77	96
85°	28	29	30	31	28	30
90°	0	0	0	0	0	

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CATALOG NUMBER: S123RDR-H1165D927-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1283.4	1283.4	1283.4	1283.4	1283.4
2.5°	1269.1	1286.8	1274.6	1275.7	1279.0
5°	1241.5	1263.6	1259.1	1268.0	1279.0
7.5°	1207.2	1231.5	1232.6	1253.6	1271.3
10°	1169.7	1195.1	1202.8	1234.9	1256.9
12.5°	1125.5	1153.1	1169.7	1209.4	1238.2
15°	1079.1	1108.9	1132.1	1180.7	1217.2
17.5°	1028.3	1060.3	1090.2	1142.1	1179.6
20°	976.4	1010.6	1044.9	1093.5	1136.5
22.5°	922.3	957.6	993.0	1040.5	1087.9
25°	869.3	902.4	934.4	985.2	1036.0
27.5°	811.8	846.1	873.7	930.0	983.0
30°	754.4	788.6	815.1	873.7	928.9
32.5°	694.7	730.1	754.4	815.1	872.6
35°	635.1	669.3	695.8	757.7	820.7
37.5°	572.1	609.7	636.2	705.8	767.6
40°	512.5	547.8	579.9	652.8	711.3
42.5°	450.6	487.1	523.5	598.6	652.8
45°	391.0	425.2	473.8	542.3	588.7
47.5°	347.9	370.0	426.3	483.8	528.0
50°	319.2	328.0	380.0	430.8	467.2
52.5°	290.5	297.1	332.5	378.8	406.5
55°	264.0	269.5	289.4	328.0	345.7
57.5°	235.3	240.8	257.4	279.4	289.4
60°	212.1	216.5	229.7	233.1	230.8
62.5°	188.9	195.5	202.1	194.4	191.1
65°	166.8	176.7	175.6	165.7	163.5
67.5°	146.9	156.8	151.3	141.4	138.1
70°	127.0	137.0	129.2	119.3	116.0
72.5°	108.2	119.3	107.1	98.3	96.1
75°	90.6	99.4	87.3	80.6	77.3
77.5°	74.0	80.6	69.6	64.1	61.9
80°	57.4	61.9	53.0	49.7	48.6
82.5°	42.0	44.2	38.7	40.9	39.8
85°	27.6	28.7	29.8	30.9	27.6
87.5°	13.3	18.8	18.8	17.7	14.4
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	16.61	18.07	16.98	18.39	18.70	17.68	19.14	18.04	19.46	19.77
	3H	18.31	19.62	18.69	19.95	20.31	18.76	20.07	19.14	20.40	20.77
	4H	18.96	20.19	19.36	20.54	20.92	19.17	20.39	19.57	20.74	21.12
	6H	19.46	20.60	19.88	20.97	21.36	19.48	20.61	19.89	20.98	21.37
	8H	19.64	20.72	20.06	21.11	21.51	19.61	20.69	20.04	21.08	21.48
	12H	19.76	20.79	20.19	21.18	21.61	19.73	20.76	20.16	21.15	21.57
4H	2H	17.21	18.44	17.61	18.79	19.17	18.08	19.31	18.48	19.66	20.04
	3H	19.14	20.16	19.55	20.56	20.96	19.40	20.42	19.81	20.82	21.22
	4H	19.95	20.87	20.38	21.28	21.72	19.92	20.84	20.35	21.25	21.69
	6H	20.60	21.39	21.06	21.84	22.30	20.35	21.15	20.81	21.59	22.05
	8H	20.82	21.57	21.29	22.01	22.48	20.54	21.29	21.01	21.73	22.20
	12H	20.99	21.66	21.48	22.14	22.61	20.73	21.39	21.21	21.87	22.34
8H	4H	20.19	20.93	20.65	21.38	21.85	20.17	20.91	20.63	21.35	21.82
	6H	20.98	21.59	21.47	22.08	22.56	20.71	21.33	21.21	21.82	22.30
	8H	21.29	21.84	21.80	22.35	22.84	20.99	21.54	21.51	22.05	22.54
	12H	21.56	22.05	22.07	22.54	23.11	21.28	21.77	21.79	22.26	22.83
12H	4H	20.20	20.86	20.68	21.34	21.82	20.19	20.86	20.67	21.34	21.81
	6H	21.01	21.56	21.53	22.07	22.56	20.77	21.32	21.28	21.83	22.32
	8H	21.39	21.88	21.90	22.37	22.93	21.11	21.60	21.62	22.09	22.66