

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: P1059153

Luminaire Tested: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

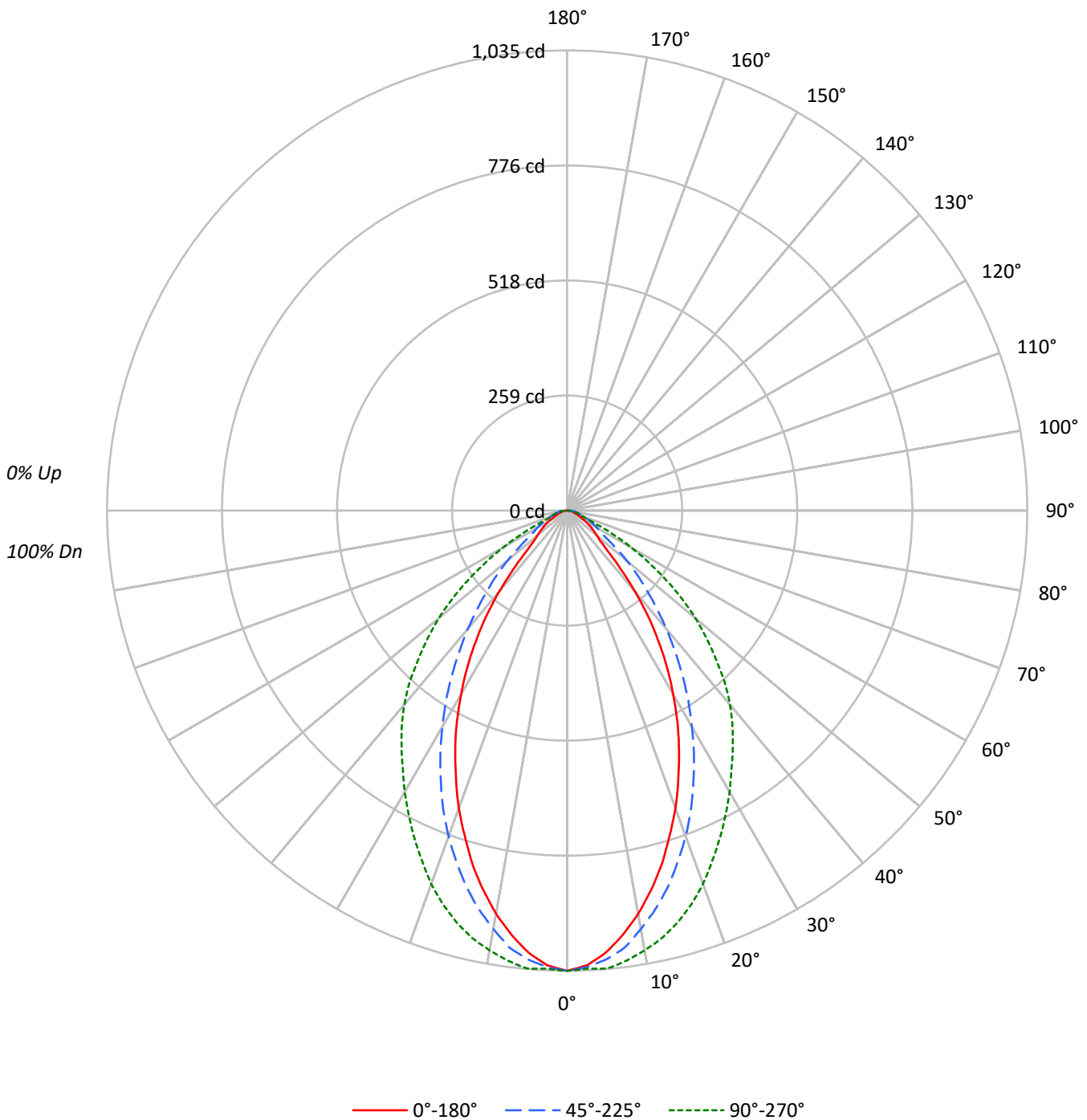
Lumens per Lamp: N/A
Luminaire Lumens: 1389.8 lumens
Efficiency: N/A
Efficacy: 33.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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: P1059153

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059153

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12157	12157	12157
5°	11764	11945	12188
10°	10979	11394	11976
15°	10006	10647	11663
20°	8903	9739	11169
25°	7716	8714	10531
30°	6469	7603	9905
35°	5125	6471	9310
40°	3627	5322	8733
45°	2136	4208	7860
50°	1598	3195	6883
55°	1343	2160	5530
60°	1087	1844	3927
65°	859	1573	2073
70°	752	1370	1281
75°	699	1284	1225
80°	697	1393	1217
85°	862	2075	1563

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7860 cd/sqm



TEST NUMBER: P1059153

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.3	6.9
10°-20°	247.6	17.8
20°-30°	315.4	22.7
30°-40°	296.6	21.3
40°-50°	213.6	15.4
50°-60°	123.4	8.9
60°-70°	56.4	4.1
70°-80°	28.2	2.0
80°-90°	13.3	1.0
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°	658.3	47.4
0°-40°	954.9	68.7
0°-60°	1291.9	93.0
0°-90°	1389.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1389.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	998	1015	1013	1024	1034	93
15°	823	853	876	925	959	229
25°	596	626	673	747	813	272
35°	358	388	451	556	650	222
45°	129	161	253	381	473	109
55°	66	68	106	201	270	59
65°	31	44	57	63	75	32
75°	15	30	28	27	27	16
85°	6	14	15	14	12	7
90°	0	0	0	0	0	



TEST NUMBER: P1059153

CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1035.3	1035.3	1035.3	1035.3	1035.3
2.5°	1023.7	1036.6	1027.6	1028.9	1031.5
5°	998.0	1014.7	1013.4	1023.7	1034.0
7.5°	962.0	981.3	991.6	1007.0	1021.2
10°	920.8	942.7	955.6	983.9	1004.4
12.5°	873.3	901.6	918.3	955.6	985.2
15°	823.1	852.7	875.8	924.7	959.4
17.5°	766.5	798.7	828.2	886.1	928.6
20°	712.5	743.4	779.4	842.4	893.8
22.5°	653.3	686.8	727.9	794.8	852.7
25°	595.5	626.3	672.6	747.2	812.8
27.5°	537.6	568.5	617.3	699.6	771.7
30°	477.1	509.3	560.7	652.1	730.5
32.5°	418.0	448.8	506.7	605.8	688.1
35°	357.5	388.4	451.4	555.6	649.5
37.5°	298.4	330.5	397.4	514.4	610.9
40°	236.6	271.4	347.2	472.0	569.7
42.5°	178.8	216.1	297.1	428.3	524.7
45°	128.6	160.8	253.4	380.7	473.3
47.5°	100.3	117.0	213.5	331.8	425.7
50°	87.5	90.0	174.9	286.8	376.8
52.5°	75.9	78.5	137.6	244.4	325.4
55°	65.6	68.2	105.5	200.6	270.1
57.5°	55.3	59.2	87.5	159.5	217.4
60°	46.3	51.4	78.5	122.2	167.2
62.5°	37.3	46.3	66.9	90.0	119.6
65°	30.9	43.7	56.6	63.0	74.6
67.5°	25.7	39.9	47.6	45.0	43.7
70°	21.9	36.0	39.9	36.0	37.3
72.5°	18.0	33.4	33.4	30.9	30.9
75°	15.4	29.6	28.3	27.0	27.0
77.5°	12.9	25.7	24.4	23.1	21.9
80°	10.3	20.6	20.6	19.3	18.0
82.5°	9.0	16.7	16.7	16.7	14.1
85°	6.4	14.1	15.4	14.1	11.6
87.5°	5.1	12.9	12.9	11.6	7.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059153
 CATALOG NUMBER: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-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	8.65	9.97	9.02	10.28	10.60	16.01	17.33	16.38	17.64	17.96
	3H	10.04	11.21	10.42	11.54	11.91	16.24	17.41	16.62	17.74	18.11
	4H	10.59	11.68	11.00	12.03	12.42	16.36	17.45	16.76	17.80	18.18
	6H	11.03	12.03	11.44	12.40	12.79	16.47	17.47	16.89	17.85	18.24
	8H	11.20	12.15	11.63	12.54	12.95	16.52	17.47	16.95	17.86	18.27
	12H	11.36	12.27	11.79	12.65	13.08	16.58	17.49	17.02	17.87	18.30
4H	2H	9.75	10.84	10.15	11.19	11.58	15.97	17.06	16.37	17.41	17.80
	3H	11.41	12.31	11.83	12.71	13.11	16.33	17.22	16.74	17.63	18.03
	4H	12.22	13.02	12.66	13.44	13.88	16.53	17.33	16.96	17.75	18.19
	6H	12.86	13.55	13.32	14.00	14.46	16.76	17.45	17.22	17.89	18.36
	8H	13.09	13.74	13.56	14.19	14.66	16.86	17.50	17.33	17.95	18.42
	12H	13.31	13.88	13.79	14.36	14.83	16.99	17.56	17.47	18.04	18.52
8H	4H	12.66	13.31	13.13	13.76	14.23	16.57	17.21	17.03	17.66	18.13
	6H	13.58	14.11	14.08	14.60	15.08	16.89	17.42	17.40	17.92	18.40
	8H	13.99	14.47	14.52	14.99	15.48	17.08	17.56	17.60	18.07	18.57
	12H	14.41	14.83	14.92	15.33	15.90	17.33	17.75	17.85	18.25	18.82
12H	4H	12.72	13.29	13.21	13.78	14.25	16.56	17.13	17.04	17.61	18.08
	6H	13.71	14.19	14.23	14.70	15.19	16.91	17.39	17.43	17.90	18.39
	8H	14.25	14.67	14.76	15.16	15.74	17.17	17.59	17.68	18.08	18.65