

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: P1059561

Luminaire Tested: S123RDRP-H1165D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059561
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: S123RDRP-H1165D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

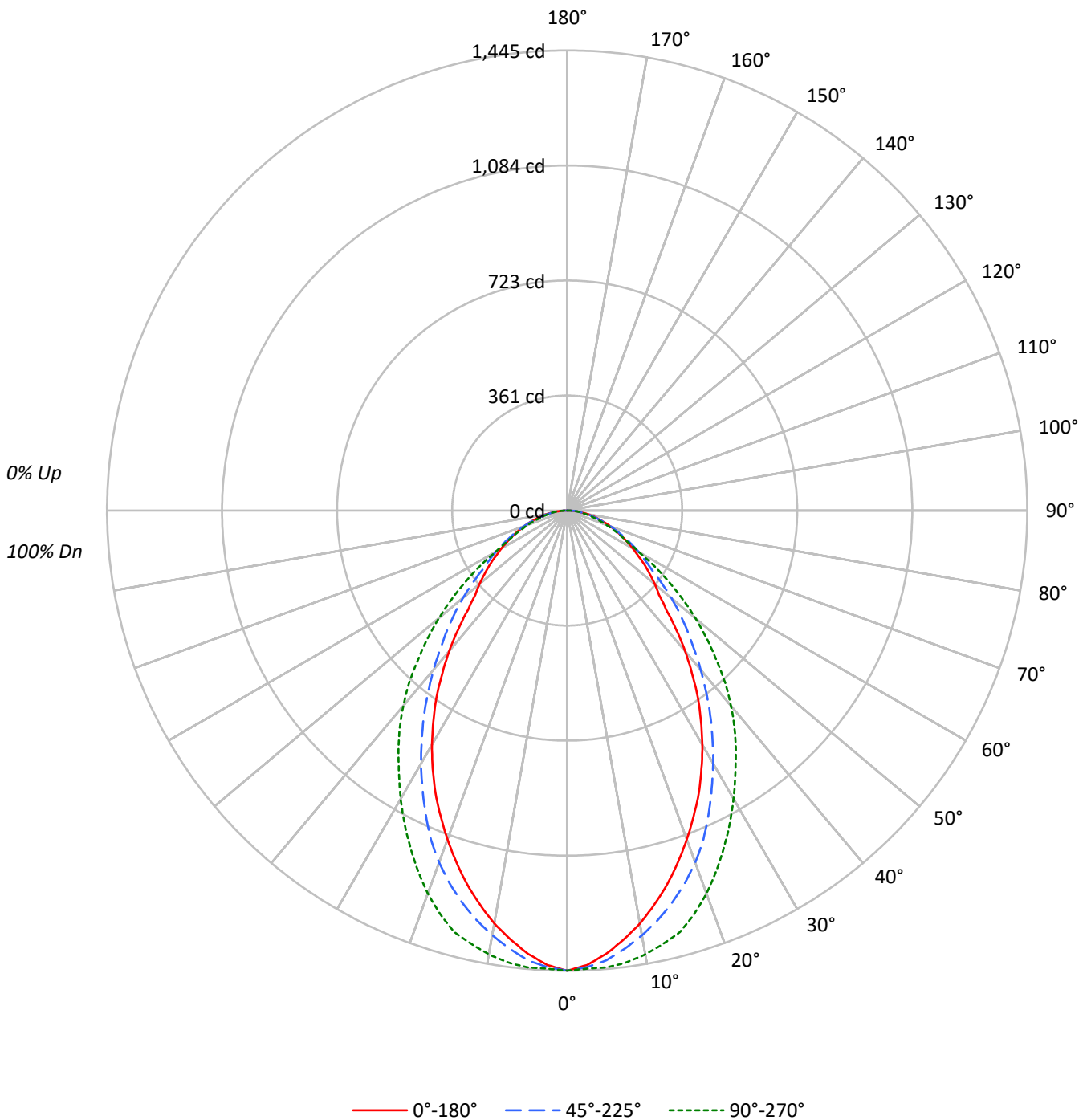
Lumens per Lamp: N/A
Luminaire Lumens: 2538.6 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
Input Voltage (V): 120
Input Current (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: P1059561

CATALOG NUMBER: S123RDRP-H1165D940-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059561

CATALOG NUMBER: S123RDRP-H1165D940-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	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°	16964	16964	16964
5°	16473	16706	16970
10°	15699	16143	16871
15°	14767	15492	16656
20°	13734	14698	15986
25°	12678	13627	15110
30°	11514	12440	14177
35°	10248	11229	13243
40°	8843	10005	12274
45°	7308	8858	11005
50°	6564	7813	9607
55°	6082	6668	7966
60°	5606	6073	6101
65°	5215	5493	5112
70°	4910	4995	4480
75°	4623	4455	3947
80°	4375	4037	3699
85°	4190	4527	4190

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11005 cd/sqm

TEST NUMBER: P1059561

CATALOG NUMBER: S123RDRP-H1165D940-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.8	5.3
10°-20°	360.5	14.2
20°-30°	487.7	19.2
30°-40°	501.1	19.7
40°-50°	420.9	16.6
50°-60°	301.7	11.9
60°-70°	192.1	7.6
70°-80°	105.6	4.2
80°-90°	35.2	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°	982.0	38.7
0°-40°	1483.1	58.4
0°-60°	2205.7	86.9
0°-90°	2538.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2538.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1445	1445	1445	1445	1445	
5°	1398	1422	1417	1427	1440	131
15°	1215	1248	1274	1329	1370	340
25°	978	1016	1052	1109	1166	448
35°	715	753	783	853	924	445
45°	440	479	533	610	663	348
55°	297	303	326	369	389	265
65°	188	199	198	186	184	187
75°	102	112	98	91	87	108
85°	31	32	34	35	31	34
90°	0	0	0	0	0	



TEST NUMBER: P1059561

CATALOG NUMBER: S123RDRP-H1165D940-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1444.7	1444.7	1444.7	1444.7	1444.7
2.5°	1428.5	1448.4	1434.8	1436.0	1439.7
5°	1397.5	1422.3	1417.3	1427.3	1439.7
7.5°	1358.9	1386.3	1387.5	1411.1	1431.0
10°	1316.6	1345.2	1353.9	1390.0	1414.9
12.5°	1266.9	1298.0	1316.6	1361.4	1393.7
15°	1214.7	1248.3	1274.4	1329.1	1370.1
17.5°	1157.5	1193.6	1227.1	1285.6	1327.8
20°	1099.1	1137.6	1176.2	1230.9	1279.3
22.5°	1038.1	1077.9	1117.7	1171.2	1224.6
25°	978.5	1015.8	1051.8	1109.0	1166.2
27.5°	913.8	952.4	983.4	1046.8	1106.5
30°	849.2	887.7	917.5	983.4	1045.6
32.5°	782.0	821.8	849.2	917.5	982.2
35°	714.9	753.4	783.3	852.9	923.8
37.5°	644.0	686.3	716.1	794.5	864.1
40°	576.9	616.7	652.7	734.8	800.7
42.5°	507.3	548.3	589.3	673.9	734.8
45°	440.1	478.7	533.4	610.5	662.7
47.5°	391.6	416.5	479.9	544.6	594.3
50°	359.3	369.3	427.7	484.9	525.9
52.5°	327.0	334.4	374.2	426.4	457.5
55°	297.1	303.4	325.7	369.3	389.1
57.5°	264.8	271.0	289.7	314.6	325.7
60°	238.7	243.7	258.6	262.3	259.8
62.5°	212.6	220.1	227.5	218.8	215.1
65°	187.7	198.9	197.7	186.5	184.0
67.5°	165.4	176.5	170.3	159.1	155.4
70°	143.0	154.2	145.5	134.3	130.5
72.5°	121.8	134.3	120.6	110.7	108.2
75°	101.9	111.9	98.2	90.8	87.0
77.5°	83.3	90.8	78.3	72.1	69.6
80°	64.7	69.6	59.7	55.9	54.7
82.5°	47.2	49.7	43.5	46.0	44.8
85°	31.1	32.3	33.6	34.8	31.1
87.5°	14.9	21.1	21.1	19.9	16.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059561

CATALOG NUMBER: S123RDRP-H1165D940-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	17.02	18.48	17.39	18.80	19.11	18.09	19.55	18.46	19.87	20.18
	3H	18.72	20.03	19.10	20.36	20.72	19.18	20.49	19.55	20.81	21.18
	4H	19.37	20.60	19.77	20.95	21.33	19.58	20.80	19.98	21.15	21.53
	6H	19.88	21.01	20.29	21.38	21.77	19.89	21.02	20.30	21.39	21.78
	8H	20.05	21.13	20.48	21.52	21.92	20.02	21.10	20.45	21.49	21.89
	12H	20.17	21.21	20.60	21.59	22.02	20.14	21.17	20.57	21.56	21.99
4H	2H	17.62	18.85	18.02	19.20	19.58	18.49	19.72	18.90	20.07	20.45
	3H	19.55	20.57	19.96	20.97	21.37	19.81	20.83	20.22	21.23	21.63
	4H	20.36	21.28	20.79	21.69	22.13	20.33	21.25	20.76	21.66	22.10
	6H	21.01	21.81	21.47	22.25	22.71	20.76	21.56	21.22	22.00	22.47
	8H	21.23	21.98	21.70	22.42	22.89	20.95	21.70	21.42	22.14	22.61
	12H	21.40	22.07	21.89	22.55	23.02	21.14	21.80	21.62	22.28	22.75
8H	4H	20.60	21.34	21.06	21.79	22.26	20.58	21.32	21.04	21.77	22.23
	6H	21.39	22.00	21.89	22.49	22.97	21.12	21.74	21.62	22.23	22.71
	8H	21.70	22.25	22.22	22.76	23.25	21.40	21.95	21.92	22.47	22.95
	12H	21.97	22.46	22.48	22.95	23.52	21.69	22.18	22.20	22.68	23.24
12H	4H	20.61	21.27	21.09	21.75	22.23	20.60	21.27	21.09	21.75	22.22
	6H	21.42	21.97	21.94	22.49	22.97	21.18	21.73	21.69	22.24	22.73
	8H	21.80	22.29	22.31	22.78	23.34	21.52	22.01	22.03	22.50	23.07