

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: P1059108

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059108
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-S1165D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

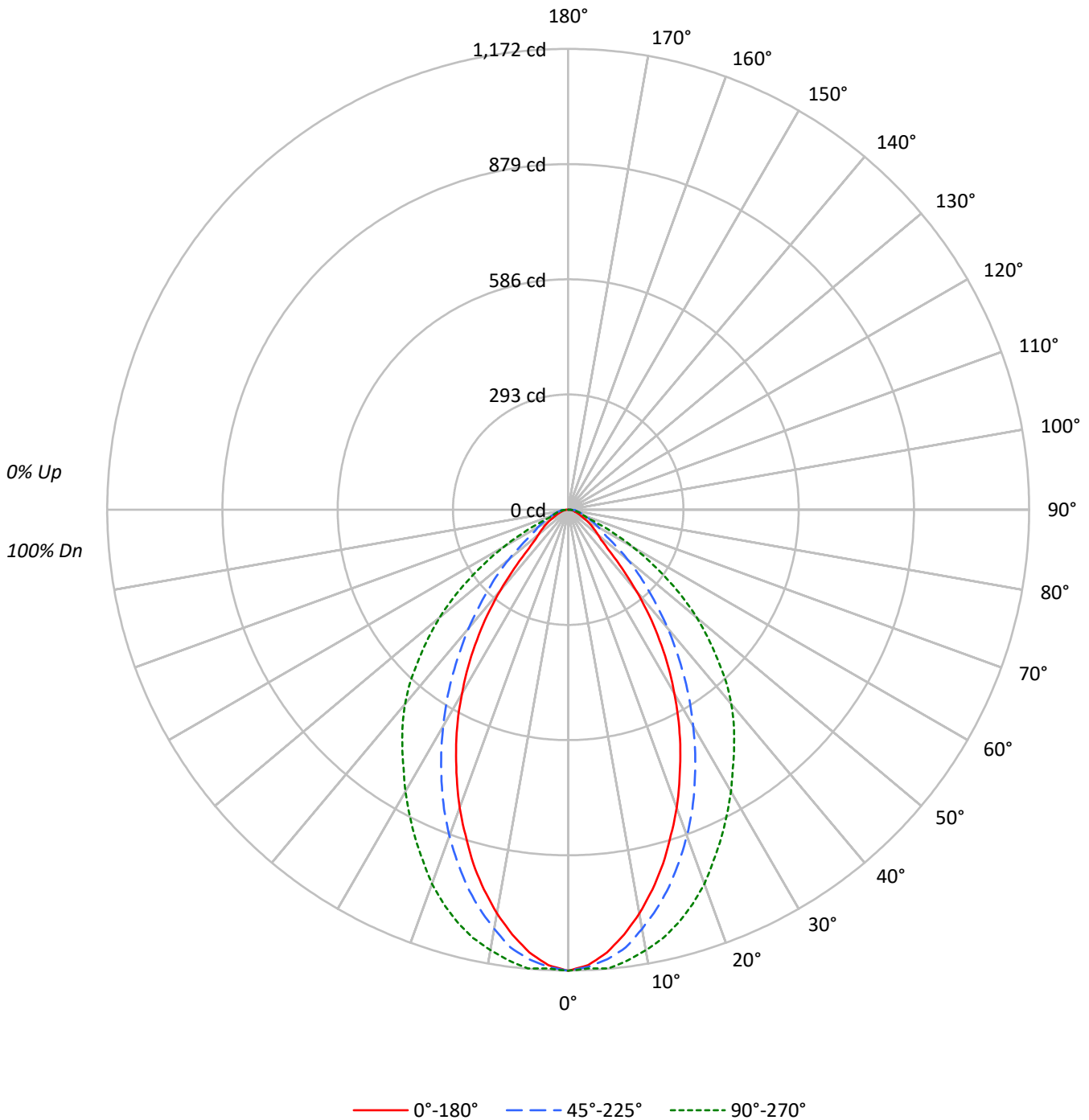
Lumens per Lamp: N/A
Luminaire Lumens: 1574.0 lumens
Efficiency: N/A
Efficacy: 37.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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: P1059108

CATALOG NUMBER: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059108

CATALOG NUMBER: S123RDRP-S1165D840-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°	13768	13768	13768
5°	13323	13528	13803
10°	12435	12904	13563
15°	11332	12058	13209
20°	10083	11029	12650
25°	8738	9870	11926
30°	7327	8610	11217
35°	5804	7328	10543
40°	4108	6029	9890
45°	2420	4764	8901
50°	1809	3619	7797
55°	1521	2444	6262
60°	1231	2085	4446
65°	972	1781	2348
70°	851	1552	1449
75°	794	1452	1388
80°	791	1576	1379
85°	984	2358	1765

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8901 cd/sqm



TEST NUMBER: P1059108

CATALOG NUMBER: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	6.9
10°-20°	280.4	17.8
20°-30°	357.2	22.7
30°-40°	335.9	21.3
40°-50°	242.0	15.4
50°-60°	139.7	8.9
60°-70°	63.9	4.1
70°-80°	31.9	2.0
80°-90°	15.1	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°	745.5	47.4
0°-40°	1081.4	68.7
0°-60°	1463.1	93.0
0°-90°	1574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1172	1172	1172	1172	1172	
5°	1130	1149	1148	1159	1171	105
15°	932	966	992	1047	1087	260
25°	674	709	762	846	920	308
35°	405	440	511	629	736	251
45°	146	182	287	431	536	123
55°	74	77	119	227	306	67
65°	35	50	64	71	84	36
75°	18	34	32	31	31	19
85°	7	16	18	16	13	8
90°	0	0	0	0	0	

TEST NUMBER: P1059108

CATALOG NUMBER: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1172.5	1172.5	1172.5	1172.5	1172.5
2.5°	1159.4	1173.9	1163.8	1165.2	1168.1
5°	1130.3	1149.2	1147.7	1159.4	1171.0
7.5°	1089.5	1111.3	1123.0	1140.4	1156.5
10°	1042.9	1067.6	1082.2	1114.2	1137.5
12.5°	989.0	1021.0	1039.9	1082.2	1115.7
15°	932.2	965.7	991.9	1047.2	1086.6
17.5°	868.1	904.5	938.0	1003.5	1051.6
20°	806.9	841.9	882.6	954.0	1012.3
22.5°	739.9	777.8	824.4	900.1	965.7
25°	674.4	709.3	761.8	846.2	920.5
27.5°	608.8	643.8	699.1	792.3	873.9
30°	540.4	576.8	635.0	738.5	827.3
32.5°	473.4	508.3	573.9	686.0	779.2
35°	404.9	439.9	511.2	629.2	735.5
37.5°	337.9	374.3	450.1	582.6	691.8
40°	268.0	307.3	393.3	534.5	645.2
42.5°	202.5	244.7	336.5	485.0	594.3
45°	145.7	182.1	286.9	431.1	536.0
47.5°	113.6	132.5	241.8	375.8	482.1
50°	99.0	102.0	198.1	324.8	426.8
52.5°	85.9	88.8	155.8	276.7	368.5
55°	74.3	77.2	119.4	227.2	305.9
57.5°	62.6	67.0	99.0	180.6	246.2
60°	52.4	58.3	88.8	138.4	189.3
62.5°	42.2	52.4	75.7	102.0	135.5
65°	35.0	49.5	64.1	71.4	84.5
67.5°	29.1	45.2	53.9	51.0	49.5
70°	24.8	40.8	45.2	40.8	42.2
72.5°	20.4	37.9	37.9	35.0	35.0
75°	17.5	33.5	32.0	30.6	30.6
77.5°	14.6	29.1	27.7	26.2	24.8
80°	11.7	23.3	23.3	21.8	20.4
82.5°	10.2	18.9	18.9	18.9	16.0
85°	7.3	16.0	17.5	16.0	13.1
87.5°	5.8	14.6	14.6	13.1	8.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059108
 CATALOG NUMBER: S123RDRP-S1165D840-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	9.08	10.40	9.45	10.71	11.03	16.44	17.76	16.81	18.08	18.39
	3H	10.47	11.64	10.85	11.97	12.34	16.67	17.84	17.05	18.17	18.54
	4H	11.02	12.12	11.43	12.47	12.85	16.79	17.88	17.19	18.23	18.61
	6H	11.46	12.46	11.87	12.83	13.23	16.90	17.91	17.32	18.28	18.67
	8H	11.64	12.59	12.07	12.98	13.38	16.96	17.91	17.39	18.30	18.70
	12H	11.79	12.70	12.23	13.08	13.51	17.02	17.92	17.45	18.31	18.74
4H	2H	10.18	11.27	10.58	11.62	12.01	16.40	17.49	16.81	17.84	18.23
	3H	11.85	12.74	12.26	13.14	13.55	16.76	17.66	17.18	18.06	18.46
	4H	12.66	13.46	13.09	13.87	14.32	16.96	17.76	17.40	18.18	18.62
	6H	13.29	13.98	13.75	14.43	14.90	17.19	17.88	17.65	18.32	18.79
	8H	13.53	14.17	14.00	14.62	15.09	17.29	17.94	17.76	18.38	18.85
	12H	13.74	14.31	14.23	14.79	15.27	17.42	17.99	17.91	18.47	18.95
8H	4H	13.10	13.74	13.57	14.19	14.66	17.00	17.64	17.47	18.09	18.56
	6H	14.01	14.54	14.51	15.03	15.52	17.33	17.86	17.83	18.35	18.83
	8H	14.43	14.90	14.95	15.42	15.91	17.51	17.99	18.04	18.51	19.00
	12H	14.84	15.27	15.36	15.76	16.33	17.76	18.19	18.28	18.68	19.25
12H	4H	13.15	13.73	13.64	14.21	14.68	16.99	17.56	17.47	18.04	18.52
	6H	14.14	14.62	14.66	15.13	15.63	17.34	17.82	17.86	18.33	18.83
	8H	14.68	15.10	15.19	15.60	16.17	17.60	18.02	18.11	18.51	19.09