

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: P1057824

Luminaire Tested: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057824
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

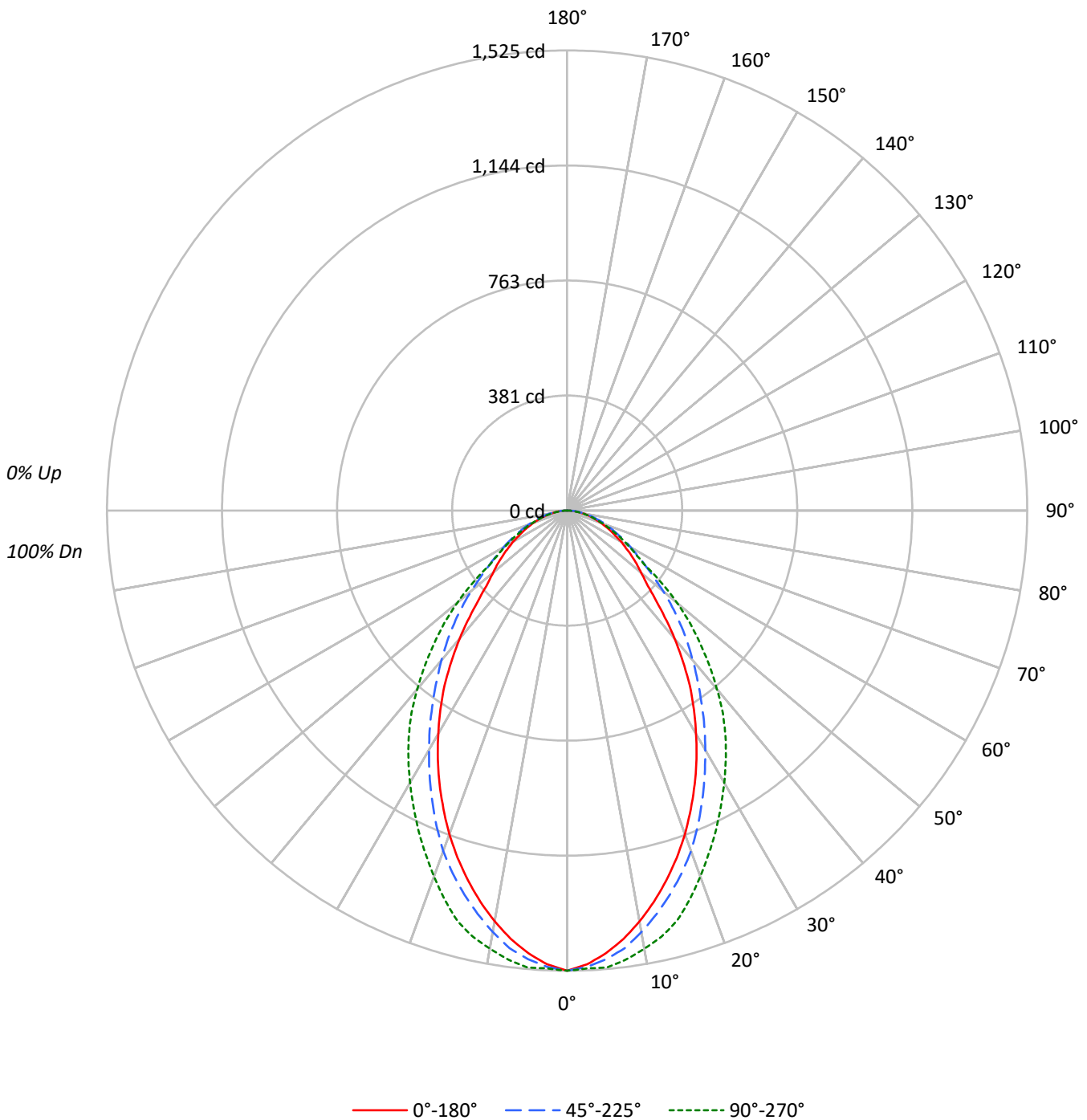
Lumens per Lamp: N/A
Luminaire Lumens: 2486.1 lumens
Efficiency: N/A
Efficacy: 59.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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: P1057824

CATALOG NUMBER: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1057824

CATALOG NUMBER: S122RDRP-S1005D850-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	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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				36
10	59	47	40	35	58	46	39	35	46	39	35	45	39	35	44	38	34	33				33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28138	28138	28138
5°	27275	27640	28155
10°	25900	26577	27620
15°	24244	25153	26877
20°	22411	23570	25341
25°	20364	21567	23770
30°	18203	19496	22185
35°	15958	17471	20612
40°	13350	15602	18603
45°	10697	13820	16260
50°	9178	11911	13650
55°	8387	10127	10076
60°	7625	8957	8776
65°	6947	8016	7663
70°	6372	7343	6814
75°	5960	6780	5960
80°	5579	6270	5228
85°	5547	6606	4510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 16260 cd/sqm



TEST NUMBER: P1057824

CATALOG NUMBER: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.8	5.7
10°-20°	372.7	15.0
20°-30°	491.6	19.8
30°-40°	495.0	19.9
40°-50°	402.9	16.2
50°-60°	274.7	11.0
60°-70°	178.3	7.2
70°-80°	98.2	3.9
80°-90°	32.0	1.3
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°	1005.0	40.4
0°-40°	1500.0	60.3
0°-60°	2177.6	87.6
0°-90°	2486.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2486.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1525	1525	1525	1525	1525	
5°	1472	1500	1492	1505	1520	138
15°	1269	1302	1317	1371	1407	356
25°	1000	1033	1059	1107	1168	459
35°	708	744	776	843	915	440
45°	410	461	530	576	623	323
55°	261	287	315	316	313	233
65°	159	189	184	174	176	158
75°	84	103	95	85	84	89
85°	26	34	31	25	21	29
90°	0	0	0	0	0	



TEST NUMBER: P1057824

CATALOG NUMBER: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1524.9	1524.9	1524.9	1524.9	1524.9
2.5°	1505.3	1529.9	1513.5	1515.1	1518.4
5°	1472.5	1500.4	1492.2	1505.3	1520.0
7.5°	1431.5	1459.4	1462.6	1482.3	1500.4
10°	1382.3	1413.4	1418.4	1447.9	1474.1
12.5°	1328.2	1362.6	1369.2	1411.8	1446.2
15°	1269.1	1301.9	1316.7	1370.8	1406.9
17.5°	1206.8	1238.0	1261.0	1310.1	1351.1
20°	1141.3	1170.8	1200.3	1244.6	1290.5
22.5°	1070.7	1103.5	1131.4	1175.7	1228.2
25°	1000.2	1033.0	1059.3	1106.8	1167.5
27.5°	928.1	960.9	987.1	1037.9	1103.5
30°	854.3	888.7	915.0	972.4	1041.2
32.5°	782.2	816.6	846.1	906.8	978.9
35°	708.4	744.4	775.6	842.8	915.0
37.5°	629.7	670.6	710.0	777.2	847.7
40°	554.2	600.1	647.7	710.0	772.3
42.5°	478.8	529.6	588.7	641.1	698.5
45°	409.9	460.8	529.6	575.5	623.1
47.5°	355.8	398.5	472.2	510.0	552.6
50°	319.7	349.3	414.9	444.4	475.5
52.5°	290.2	314.8	360.7	380.4	396.8
55°	260.7	287.0	314.8	316.5	313.2
57.5°	231.2	260.7	275.5	264.0	270.6
60°	206.6	236.1	242.7	231.2	237.8
62.5°	180.4	213.2	213.2	201.7	205.0
65°	159.1	188.6	183.6	173.8	175.5
67.5°	137.7	167.3	159.1	149.2	149.2
70°	118.1	145.9	136.1	126.3	126.3
72.5°	100.0	123.0	116.4	104.9	103.3
75°	83.6	103.3	95.1	85.3	83.6
77.5°	67.2	83.6	77.1	68.9	65.6
80°	52.5	67.2	59.0	52.5	49.2
82.5°	39.4	50.8	44.3	37.7	34.4
85°	26.2	34.4	31.2	24.6	21.3
87.5°	13.1	23.0	19.7	16.4	13.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1057824

CATALOG NUMBER: S122RDRP-S1005D850-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	18.31	19.75	18.68	20.06	20.38	18.56	20.00	18.93	20.31	20.63
	3H	19.84	21.13	20.22	21.46	21.82	19.92	21.21	20.30	21.53	21.90
	4H	20.40	21.61	20.80	21.96	22.34	20.40	21.61	20.80	21.95	22.34
	6H	20.83	21.94	21.24	22.31	22.70	20.75	21.86	21.16	22.23	22.62
	8H	20.98	22.04	21.41	22.43	22.83	20.86	21.91	21.28	22.30	22.71
	12H	21.09	22.10	21.52	22.49	22.92	20.93	21.94	21.36	22.32	22.75
4H	2H	18.88	20.09	19.29	20.44	20.82	19.08	20.29	19.48	20.64	21.02
	3H	20.69	21.69	21.10	22.09	22.49	20.66	21.66	21.07	22.06	22.46
	4H	21.43	22.33	21.86	22.75	23.19	21.25	22.15	21.69	22.57	23.01
	6H	22.02	22.80	22.48	23.24	23.70	21.72	22.50	22.18	22.95	23.41
	8H	22.23	22.96	22.69	23.40	23.87	21.87	22.60	22.34	23.05	23.51
	12H	22.39	23.04	22.88	23.52	23.99	21.98	22.63	22.46	23.11	23.58
8H	4H	21.70	22.43	22.16	22.87	23.34	21.54	22.27	22.01	22.72	23.19
	6H	22.45	23.05	22.95	23.55	24.02	22.13	22.74	22.63	23.23	23.71
	8H	22.78	23.32	23.29	23.83	24.32	22.36	22.90	22.87	23.41	23.90
	12H	23.06	23.53	23.57	24.03	24.59	22.54	23.02	23.05	23.51	24.08
12H	4H	21.71	22.36	22.19	22.84	23.31	21.58	22.23	22.06	22.71	23.18
	6H	22.50	23.04	23.01	23.55	24.04	22.20	22.74	22.72	23.25	23.74
	8H	22.89	23.37	23.40	23.86	24.43	22.49	22.96	23.00	23.46	24.02