

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: P242871

Luminaire Tested: S125RDRP-S850D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S850D927-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

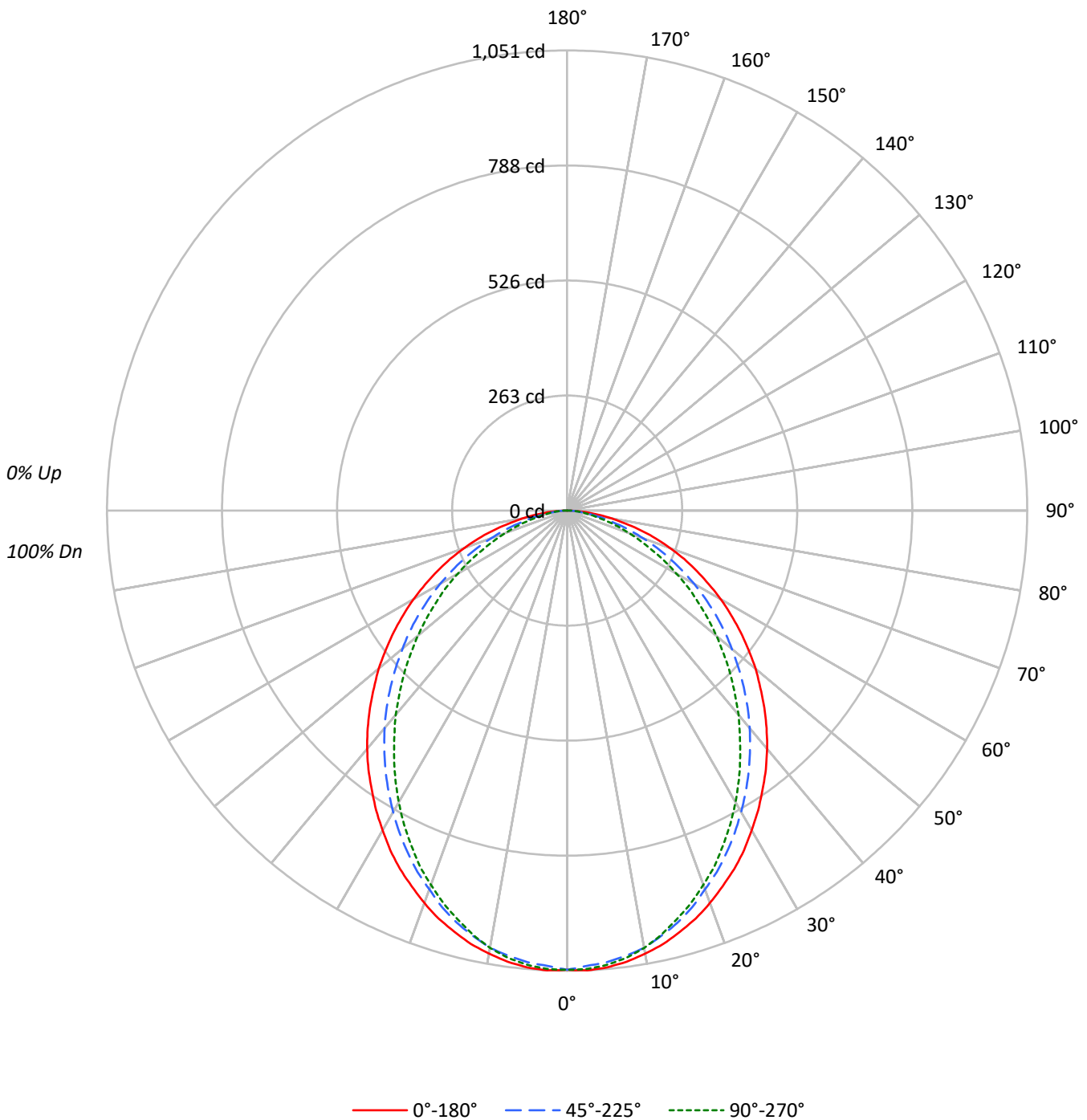
Lumens per Lamp: N/A
Luminaire Lumens: 2478.1 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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: P242871

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242871

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-F-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	109	105	101	97	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78		84	79	76		81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66		74	69	65		72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57		67	61	56		64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49		60	54	49		58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44		55	48	43		53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39		50	43	39		49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35		46	39	35		45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32		42	36	31		41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29		39	33	29		39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7454	7454	7454
5°	7472	7387	7432
10°	7415	7318	7318
15°	7327	7170	7112
20°	7214	6962	6878
25°	7082	6759	6610
30°	6918	6521	6313
35°	6749	6276	5980
40°	6593	6020	5652
45°	6402	5733	5295
50°	6211	5422	4923
55°	5987	5124	4525
60°	5765	4763	4100
65°	5503	4344	3611
70°	5201	3819	3111
75°	4786	3218	2590
80°	4216	2529	2173
85°	3555	2063	1941

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6402 cd/sqm



TEST NUMBER: P242871

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.7	4.0
10°-20°	275.9	11.1
20°-30°	400.0	16.1
30°-40°	455.7	18.4
40°-50°	444.2	17.9
50°-60°	373.8	15.1
60°-70°	262.0	10.6
70°-80°	134.3	5.4
80°-90°	33.5	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°	774.6	31.3
0°-40°	1230.3	49.6
0°-60°	2048.3	82.7
0°-90°	2478.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2478.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1047	1044	1035	1043	1042	99
15°	996	991	974	974	966	281
25°	903	891	862	852	843	416
35°	778	759	723	700	689	487
45°	637	614	570	539	527	491
55°	483	458	414	378	365	432
65°	327	300	258	227	215	324
75°	174	150	117	100	94	184
85°	44	29	25	25	24	50
90°	0	0	0	0	0	



TEST NUMBER: P242871

CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.8	1048.8	1048.8	1048.8	1048.8
2.5°	1051.2	1048.8	1040.9	1048.8	1048.1
5°	1047.3	1044.1	1035.4	1043.3	1041.7
7.5°	1039.3	1036.2	1025.9	1032.2	1030.6
10°	1027.5	1025.1	1014.0	1016.4	1014.0
12.5°	1014.0	1010.8	995.0	996.6	992.6
15°	995.8	991.0	974.4	973.6	966.5
17.5°	976.8	969.6	949.8	945.9	940.3
20°	953.8	945.9	920.5	916.6	909.4
22.5°	928.4	920.5	893.6	884.9	879.3
25°	903.1	891.2	861.9	851.6	842.9
27.5°	874.6	860.3	829.4	815.9	807.2
30°	842.9	827.8	794.6	776.3	769.2
32.5°	812.0	793.8	759.7	739.1	729.6
35°	777.9	758.9	723.3	700.3	689.2
37.5°	745.4	722.5	686.0	659.1	648.0
40°	710.6	686.8	648.8	618.7	609.2
42.5°	674.1	649.6	610.0	581.5	566.4
45°	636.9	613.9	570.4	538.7	526.8
47.5°	598.1	574.3	530.8	498.3	484.8
50°	561.7	535.5	490.4	457.1	445.2
52.5°	522.0	495.1	453.1	416.7	404.8
55°	483.2	457.9	413.5	377.9	365.2
57.5°	443.6	416.7	373.9	339.1	328.0
60°	405.6	377.9	335.1	300.2	288.4
62.5°	365.2	339.1	295.5	263.8	251.9
65°	327.2	300.2	258.3	226.6	214.7
67.5°	289.1	262.2	221.8	191.7	182.2
70°	250.3	223.4	183.8	159.2	149.7
72.5°	212.3	186.2	149.7	127.5	122.0
75°	174.3	150.5	117.2	99.8	94.3
77.5°	135.5	116.5	88.7	75.3	70.5
80°	103.0	84.0	61.8	54.7	53.1
82.5°	71.3	54.7	41.2	38.8	38.0
85°	43.6	29.3	25.3	24.6	23.8
87.5°	18.2	12.7	11.9	11.9	11.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242871
 CATALOG NUMBER: S125RDRP-S850D927-X4F0-XX-UDD-F-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	18.32	19.89	18.68	20.21	20.52	16.75	18.33	17.12	18.64	18.96
	3H	20.10	21.52	20.48	21.85	22.21	18.07	19.48	18.44	19.81	20.17
	4H	20.77	22.10	21.16	22.45	22.82	18.48	19.81	18.87	20.16	20.53
	6H	21.23	22.47	21.65	22.83	23.22	18.73	19.96	19.14	20.33	20.72
	8H	21.38	22.56	21.81	22.95	23.35	18.81	19.99	19.24	20.38	20.78
	12H	21.48	22.61	21.91	22.99	23.42	18.87	19.99	19.30	20.38	20.80
4H	2H	18.71	20.04	19.11	20.39	20.77	17.44	18.77	17.84	19.12	19.50
	3H	20.69	21.80	21.10	22.20	22.60	18.94	20.05	19.35	20.45	20.85
	4H	21.48	22.48	21.91	22.89	23.33	19.43	20.44	19.87	20.85	21.29
	6H	22.07	22.94	22.53	23.39	23.84	19.78	20.65	20.23	21.09	21.55
	8H	22.26	23.08	22.73	23.52	23.99	19.89	20.70	20.35	21.15	21.61
	12H	22.40	23.13	22.88	23.61	24.08	19.97	20.71	20.46	21.18	21.65
8H	4H	21.60	22.42	22.06	22.86	23.33	19.75	20.56	20.21	21.01	21.47
	6H	22.28	22.95	22.77	23.44	23.92	20.17	20.85	20.67	21.34	21.81
	8H	22.52	23.13	23.04	23.64	24.13	20.33	20.94	20.84	21.45	21.93
	12H	22.72	23.26	23.23	23.75	24.31	20.47	21.01	20.98	21.50	22.06
12H	4H	21.60	22.33	22.08	22.80	23.27	19.79	20.52	20.27	20.99	21.46
	6H	22.27	22.88	22.78	23.39	23.87	20.22	20.83	20.74	21.34	21.83
	8H	22.56	23.09	23.07	23.59	24.15	20.43	20.97	20.94	21.46	22.02