

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: P243238

Luminaire Tested: S122RDRP-H485D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243238
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H485D935-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

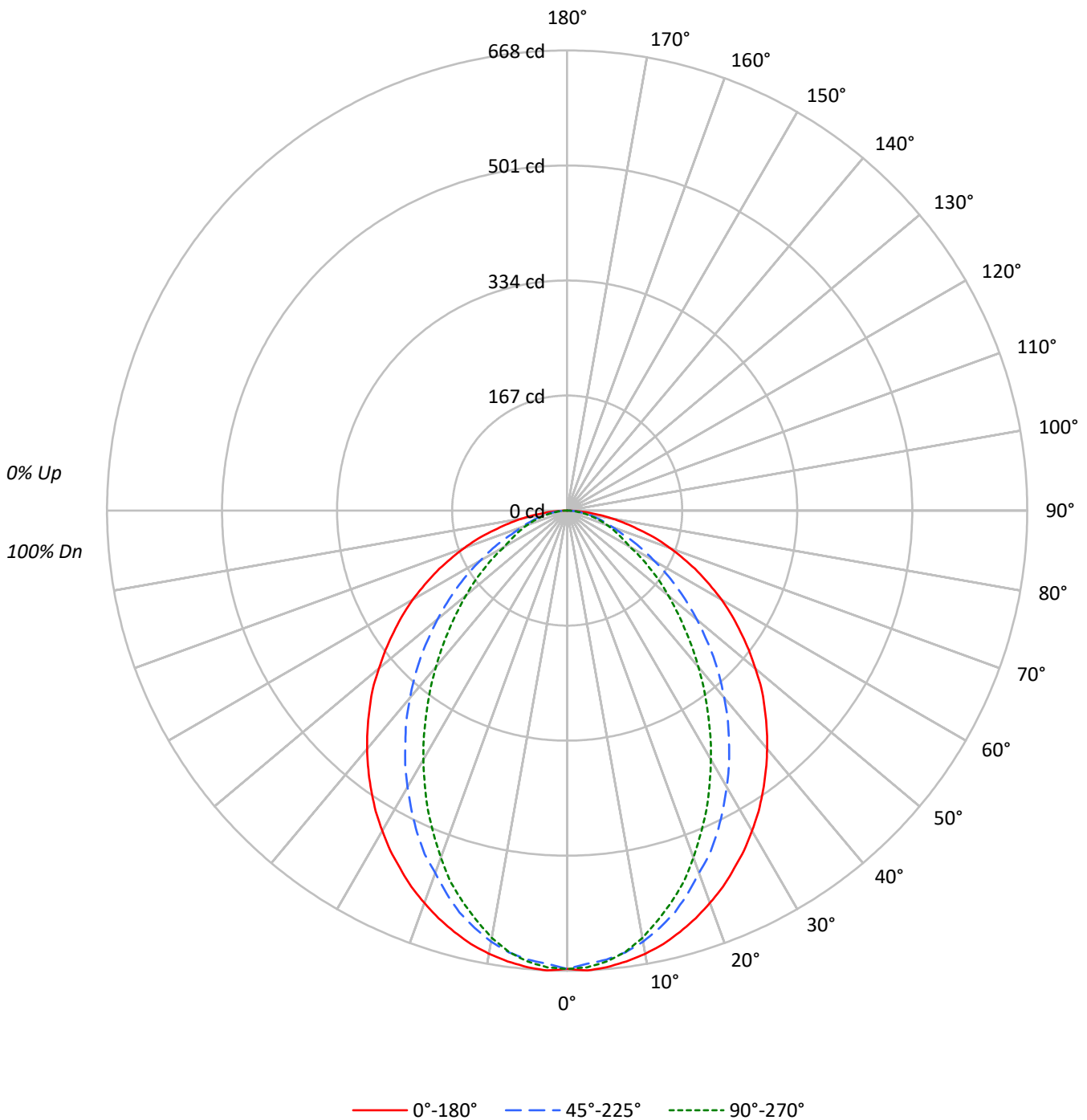
Lumens per Lamp: N/A
Luminaire Lumens: 1364.4 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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: P243238

CATALOG NUMBER: S122RDRP-H485D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243238

CATALOG NUMBER: S122RDRP-H485D935-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	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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74				74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64				64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55				55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49				49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43				43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39				39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35				35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12672	12672	12672
5°	12721	12512	12566
10°	12634	12290	12179
15°	12485	11909	11579
20°	12288	11345	10867
25°	12051	10834	10061
30°	11804	10188	9178
35°	11531	9517	8262
40°	11232	8820	7365
45°	10918	8087	6478
50°	10564	7281	5681
55°	10198	6482	4898
60°	9863	5577	4000
65°	9415	4710	3700
70°	8855	3898	3453
75°	8066	3547	3172
80°	7240	3148	2830
85°	6032	2644	2513

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10918 cd/sqm



TEST NUMBER: P243238

CATALOG NUMBER: S122RDRP-H485D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.3	4.6
10°-20°	170.8	12.5
20°-30°	239.6	17.6
30°-40°	260.9	19.1
40°-50°	239.9	17.6
50°-60°	188.2	13.8
60°-70°	122.8	9.0
70°-80°	63.5	4.7
80°-90°	16.4	1.2
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°	472.6	34.6
0°-40°	733.6	53.8
0°-60°	1161.7	85.1
0°-90°	1364.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1364.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	665	662	654	659	657	63
15°	633	626	604	592	587	178
25°	573	553	516	490	479	264
35°	496	463	409	371	355	310
45°	405	364	300	257	240	313
55°	307	261	195	158	148	275
65°	209	158	104	85	82	206
75°	110	68	48	44	43	117
85°	28	13	12	12	12	32
90°	0	0	0	0	0	



TEST NUMBER: P243238

CATALOG NUMBER: S122RDRP-H485D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	665.3	665.3	665.3	665.3	665.3
2.5°	668.2	665.3	658.4	664.7	663.6
5°	665.3	661.8	654.4	659.0	657.2
7.5°	660.1	656.7	646.9	649.2	646.3
10°	653.2	648.6	635.4	633.1	629.7
12.5°	644.6	638.3	620.5	613.6	609.0
15°	633.1	625.7	603.9	591.8	587.2
17.5°	620.5	609.6	582.6	568.8	564.3
20°	606.2	593.5	559.7	545.3	536.1
22.5°	591.2	575.2	540.1	517.8	506.9
25°	573.4	553.3	515.5	490.2	478.7
27.5°	556.2	532.7	489.6	460.4	447.7
30°	536.7	510.9	463.2	429.4	417.3
32.5°	517.2	487.3	437.4	400.7	386.9
35°	495.9	463.2	409.3	371.4	355.3
37.5°	474.1	440.3	383.4	341.5	326.0
40°	451.7	413.9	354.7	311.1	296.2
42.5°	428.8	390.3	327.8	283.0	268.6
45°	405.3	363.9	300.2	256.6	240.5
47.5°	382.9	338.1	272.1	230.8	215.3
50°	356.5	312.3	245.7	203.8	191.7
52.5°	332.4	286.4	219.8	179.7	169.3
55°	307.1	261.2	195.2	158.4	147.5
57.5°	283.6	234.8	170.5	137.2	126.9
60°	258.9	209.5	146.4	116.0	105.0
62.5°	233.0	183.7	125.1	96.4	93.0
65°	208.9	158.4	104.5	85.0	82.1
67.5°	183.1	134.9	83.2	74.6	71.8
70°	159.0	111.9	70.0	63.7	62.0
72.5°	135.5	90.1	59.1	54.0	52.2
75°	109.6	68.3	48.2	44.2	43.1
77.5°	87.2	48.2	38.5	35.6	34.4
80°	66.0	35.0	28.7	27.0	25.8
82.5°	45.3	23.5	20.1	18.9	18.4
85°	27.6	13.2	12.1	11.5	11.5
87.5°	10.9	5.2	5.2	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P243238
 CATALOG NUMBER: S122RDRP-H485D935-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	20.07	21.59	20.43	21.91	22.22	15.96	17.48	16.32	17.79	18.11
	3H	21.84	23.20	22.21	23.53	23.89	17.25	18.62	17.63	18.94	19.31
	4H	22.50	23.78	22.90	24.13	24.51	17.76	19.04	18.16	19.39	19.77
	6H	22.99	24.17	23.40	24.54	24.93	18.14	19.32	18.55	19.69	20.08
	8H	23.15	24.28	23.58	24.67	25.07	18.26	19.39	18.69	19.78	20.18
	12H	23.26	24.34	23.69	24.72	25.15	18.34	19.42	18.77	19.80	20.23
4H	2H	20.17	21.45	20.57	21.80	22.18	16.66	17.94	17.06	18.29	18.67
	3H	22.11	23.17	22.52	23.57	23.97	18.13	19.20	18.54	19.60	20.00
	4H	22.85	23.81	23.29	24.23	24.66	18.74	19.70	19.17	20.11	20.55
	6H	23.44	24.28	23.90	24.72	25.18	19.23	20.06	19.69	20.51	20.97
	8H	23.66	24.43	24.12	24.88	25.35	19.39	20.17	19.86	20.61	21.08
	12H	23.82	24.51	24.30	24.99	25.46	19.51	20.21	19.99	20.68	21.16
8H	4H	22.88	23.66	23.34	24.10	24.57	19.10	19.88	19.57	20.32	20.79
	6H	23.51	24.16	24.01	24.65	25.13	19.69	20.34	20.19	20.83	21.31
	8H	23.76	24.34	24.28	24.85	25.34	19.92	20.49	20.43	21.00	21.49
	12H	23.98	24.49	24.49	24.98	25.55	20.10	20.61	20.61	21.10	21.66
12H	4H	22.86	23.56	23.34	24.04	24.51	19.15	19.84	19.63	20.32	20.79
	6H	23.50	24.07	24.01	24.58	25.07	19.76	20.34	20.27	20.85	21.33
	8H	23.78	24.29	24.29	24.78	25.35	20.03	20.54	20.54	21.04	21.60