

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: P243233

Luminaire Tested: S122RDRP-H485D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243233
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-H485D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

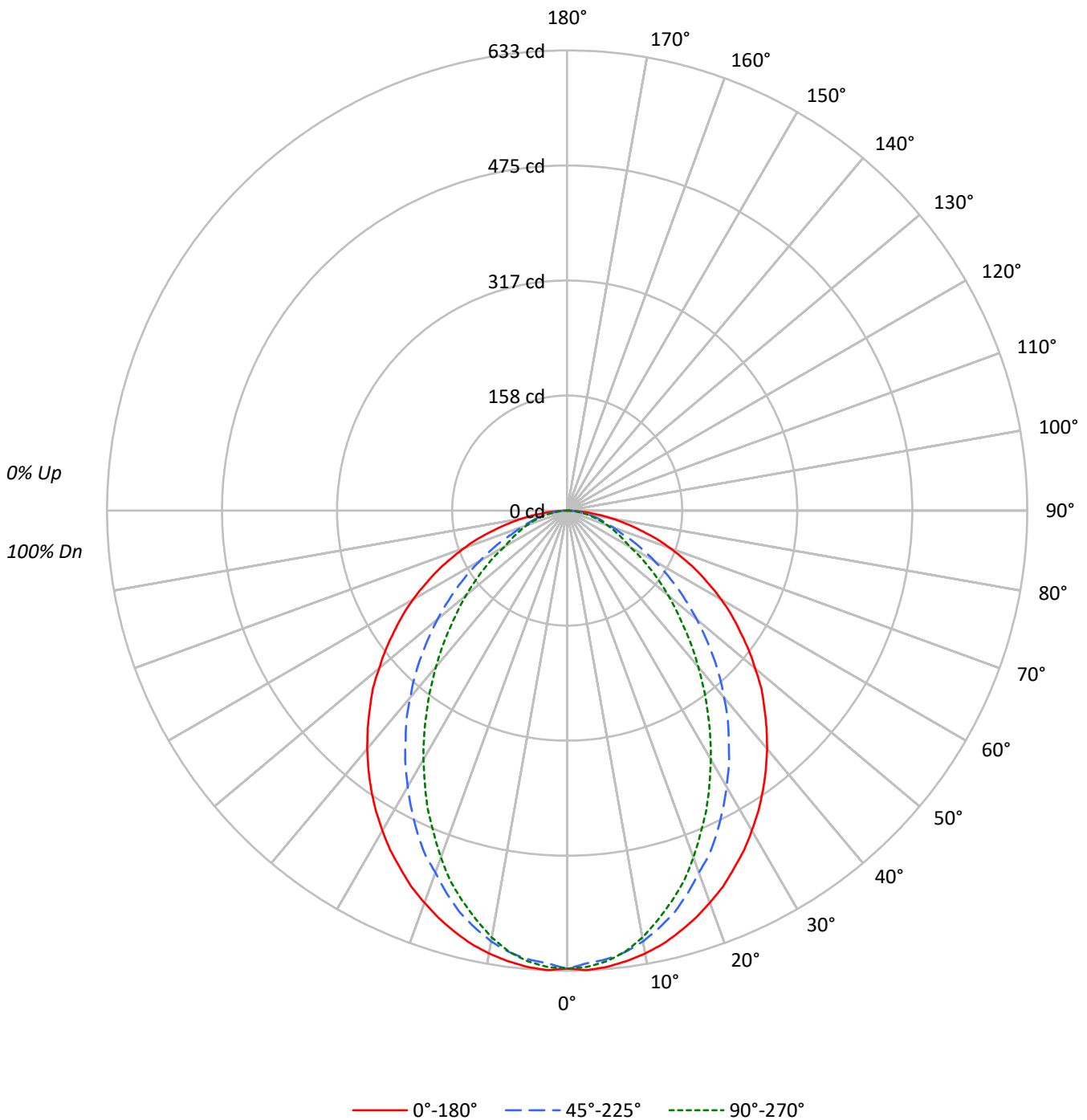
Lumens per Lamp: N/A
Luminaire Lumens: 1292.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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: P243233

CATALOG NUMBER: S122RDRP-H485D930-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243233

CATALOG NUMBER: S122RDRP-H485D930-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	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				
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76					74				
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66					64				
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57					55				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51					49				
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45					43				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41					39				
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37					35				
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34					32				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31					29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12000	12000	12000
5°	12046	11847	11901
10°	11965	11638	11533
15°	11822	11276	10964
20°	11635	10743	10291
25°	11412	10258	9527
30°	11178	9647	8692
35°	10920	9011	7825
40°	10637	8352	6975
45°	10336	7658	6134
50°	10001	6893	5378
55°	9657	6137	4639
60°	9337	5280	3790
65°	8919	4457	3502
70°	8387	3692	3269
75°	7639	3363	3003
80°	6856	2984	2687
85°	5704	2491	2382

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10336 cd/sqm



TEST NUMBER: P243233

CATALOG NUMBER: S122RDRP-H485D930-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.0	4.6
10°-20°	161.7	12.5
20°-30°	226.8	17.6
30°-40°	247.1	19.1
40°-50°	227.1	17.6
50°-60°	178.2	13.8
60°-70°	116.3	9.0
70°-80°	60.1	4.7
80°-90°	15.6	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°	447.6	34.6
0°-40°	694.7	53.8
0°-60°	1100.0	85.1
0°-90°	1292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	630	627	620	624	622	60
15°	600	592	572	560	556	169
25°	543	524	488	464	453	250
35°	470	439	388	352	336	294
45°	384	345	284	243	228	296
55°	291	247	185	150	140	261
65°	198	150	99	80	78	195
75°	104	65	46	42	41	111
85°	26	12	11	11	11	30
90°	0	0	0	0	0	



TEST NUMBER: P243233

CATALOG NUMBER: S122RDRP-H485D930-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.0	630.0	630.0	630.0	630.0
2.5°	632.7	630.0	623.4	629.4	628.3
5°	630.0	626.7	619.6	624.0	622.4
7.5°	625.1	621.8	612.6	614.7	612.0
10°	618.6	614.2	601.7	599.5	596.3
12.5°	610.4	604.4	587.6	581.0	576.7
15°	599.5	592.5	571.8	560.4	556.0
17.5°	587.6	577.2	551.7	538.7	534.3
20°	574.0	562.0	530.0	516.4	507.7
22.5°	559.9	544.6	511.5	490.3	479.9
25°	543.0	524.0	488.1	464.2	453.3
27.5°	526.7	504.4	463.6	435.9	424.0
30°	508.2	483.8	438.6	406.6	395.2
32.5°	489.7	461.5	414.2	379.4	366.3
35°	469.6	438.6	387.5	351.7	336.5
37.5°	449.0	416.9	363.1	323.4	308.7
40°	427.8	391.9	335.9	294.6	280.5
42.5°	406.0	369.6	310.4	268.0	254.4
45°	383.7	344.6	284.3	243.0	227.7
47.5°	362.5	320.1	257.6	218.5	203.8
50°	337.5	295.7	232.6	193.0	181.5
52.5°	314.7	271.2	208.2	170.1	160.3
55°	290.8	247.3	184.8	150.0	139.7
57.5°	268.5	222.3	161.4	129.9	120.1
60°	245.1	198.4	138.6	109.8	99.5
62.5°	220.7	173.9	118.5	91.3	88.1
65°	197.9	150.0	98.9	80.4	77.7
67.5°	173.4	127.7	78.8	70.7	67.9
70°	150.6	106.0	66.3	60.3	58.7
72.5°	128.3	85.3	56.0	51.1	49.5
75°	103.8	64.7	45.7	41.9	40.8
77.5°	82.6	45.7	36.4	33.7	32.6
80°	62.5	33.2	27.2	25.5	24.5
82.5°	42.9	22.3	19.0	17.9	17.4
85°	26.1	12.5	11.4	10.9	10.9
87.5°	10.3	4.9	4.9	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243233
 CATALOG NUMBER: S122RDRP-H485D930-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	19.88	21.40	20.24	21.72	22.03	15.77	17.29	16.13	17.60	17.92
	3H	21.65	23.01	22.02	23.34	23.70	17.06	18.42	17.44	18.75	19.11
	4H	22.31	23.59	22.71	23.94	24.32	17.57	18.85	17.97	19.20	19.57
	6H	22.80	23.98	23.21	24.35	24.74	17.95	19.13	18.36	19.50	19.89
	8H	22.96	24.09	23.39	24.48	24.88	18.07	19.20	18.50	19.59	19.99
	12H	23.07	24.15	23.50	24.53	24.96	18.15	19.23	18.58	19.61	20.04
4H	2H	19.98	21.26	20.38	21.61	21.99	16.47	17.75	16.87	18.10	18.48
	3H	21.92	22.98	22.33	23.38	23.78	17.94	19.01	18.35	19.41	19.81
	4H	22.66	23.62	23.10	24.04	24.47	18.55	19.51	18.98	19.92	20.36
	6H	23.26	24.09	23.71	24.53	24.99	19.04	19.88	19.50	20.32	20.78
	8H	23.47	24.25	23.93	24.69	25.16	19.20	19.98	19.67	20.43	20.89
	12H	23.63	24.33	24.11	24.80	25.28	19.32	20.02	19.80	20.49	20.97
8H	4H	22.69	23.47	23.15	23.91	24.38	18.91	19.69	19.38	20.13	20.60
	6H	23.33	23.97	23.82	24.46	24.94	19.50	20.15	20.00	20.64	21.12
	8H	23.57	24.15	24.09	24.66	25.15	19.73	20.30	20.24	20.81	21.30
	12H	23.79	24.30	24.30	24.79	25.36	19.91	20.42	20.42	20.91	21.47
12H	4H	22.67	23.37	23.16	23.85	24.32	18.96	19.65	19.44	20.13	20.60
	6H	23.31	23.89	23.82	24.39	24.88	19.57	20.15	20.08	20.66	21.14
	8H	23.59	24.10	24.10	24.59	25.16	19.84	20.35	20.35	20.85	21.41