

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: P242355

Luminaire Tested: S122RDRP-S675D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D927-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

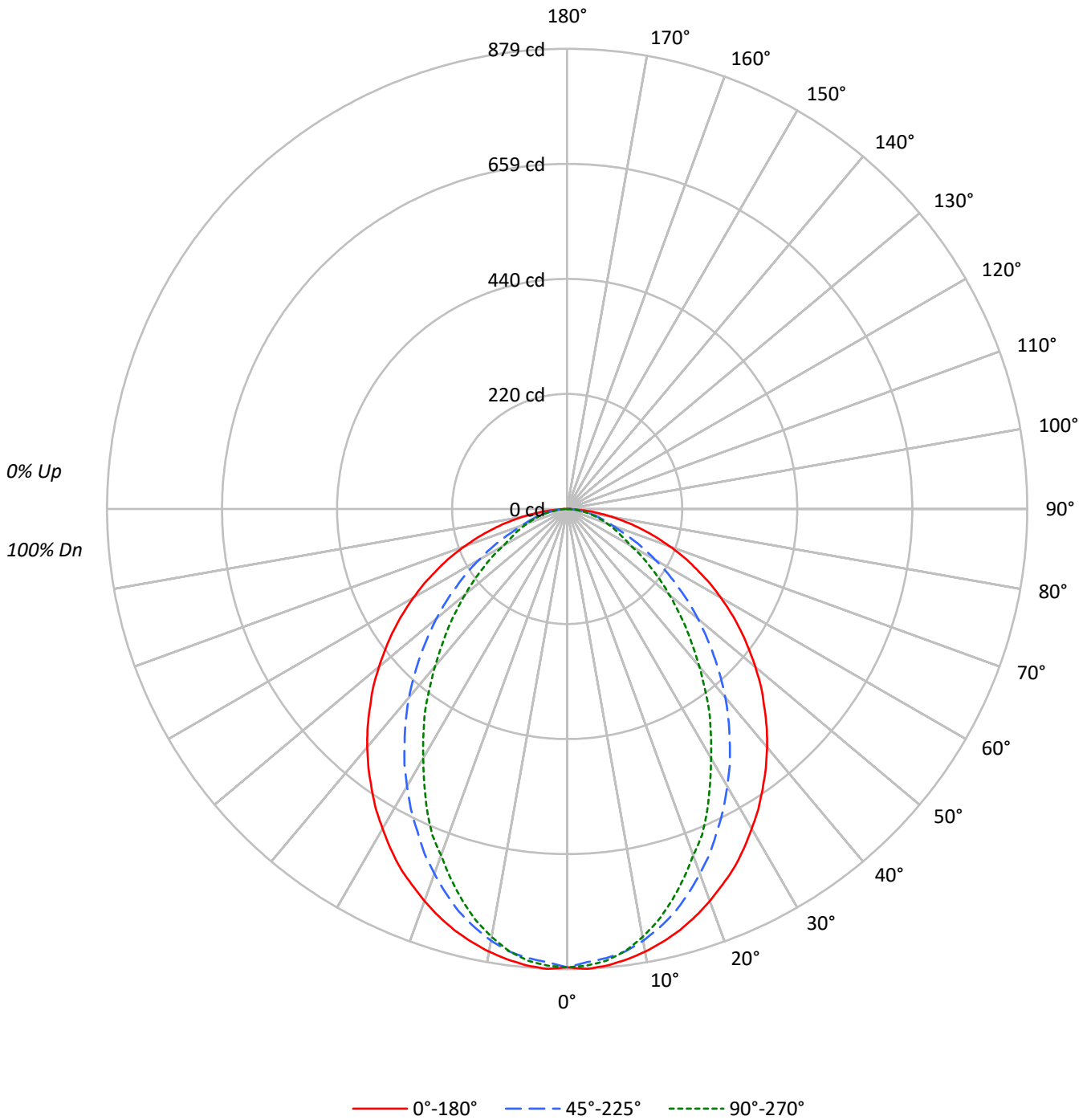
Lumens per Lamp: N/A
Luminaire Lumens: 1800.3 lumens
Efficiency: N/A
Efficacy: 68.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
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: P242355

CATALOG NUMBER: S122RDRP-S675D927-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





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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	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	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	78	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°	16674	16674	16674
5°	16738	16465	16556
10°	16609	16195	16057
15°	16419	15715	15263
20°	16153	15030	14274
25°	15882	14252	13318
30°	15506	13452	12093
35°	15142	12582	11015
40°	14772	11682	9769
45°	14339	10670	8642
50°	13898	9648	7536
55°	13443	8551	6472
60°	12918	7394	5371
65°	12318	6211	4890
70°	11601	5118	4500
75°	10730	4666	4195
80°	9466	4168	3828
85°	7452	3300	3300

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14339 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	4.6
10°-20°	225.2	12.5
20°-30°	316.2	17.6
30°-40°	344.7	19.1
40°-50°	316.8	17.6
50°-60°	248.8	13.8
60°-70°	161.9	9.0
70°-80°	83.4	4.6
80°-90°	21.3	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°	623.5	34.6
0°-40°	968.1	53.8
0°-60°	1533.7	85.2
0°-90°	1800.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	875	875	875	875	875	
5°	875	871	861	868	866	83
15°	833	824	797	782	774	235
25°	756	730	678	646	634	348
35°	651	611	541	491	474	408
45°	532	479	396	340	321	411
55°	405	343	258	210	195	362
65°	273	209	138	111	108	271
75°	146	90	63	58	57	154
85°	34	17	15	15	15	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.4	875.4	875.4	875.4	875.4
2.5°	879.3	875.4	866.6	874.6	873.0
5°	875.4	871.4	861.1	868.2	865.9
7.5°	868.2	863.5	852.4	855.6	851.6
10°	858.7	853.2	837.3	835.0	830.2
12.5°	846.8	839.7	818.3	813.6	804.9
15°	832.6	823.9	796.9	781.9	774.0
17.5°	815.9	803.3	770.0	752.6	739.9
20°	796.9	781.1	741.5	721.7	704.2
22.5°	776.3	758.1	712.2	685.2	673.4
25°	755.7	730.4	678.1	645.6	633.7
27.5°	731.2	704.2	646.4	609.2	591.0
30°	705.0	674.9	611.6	571.2	549.8
32.5°	679.7	643.3	578.3	530.8	511.0
35°	651.2	610.8	541.1	491.2	473.7
37.5°	623.4	579.9	506.2	451.5	431.7
40°	594.1	546.6	469.8	413.5	392.9
42.5°	564.0	513.3	433.3	374.7	354.9
45°	532.3	479.3	396.1	339.8	320.8
47.5°	502.2	446.0	360.4	304.2	286.8
50°	469.0	412.7	325.6	270.9	254.3
52.5°	436.5	377.1	292.3	240.0	225.0
55°	404.8	343.0	257.5	209.9	194.9
57.5°	372.3	309.0	226.6	182.2	169.5
60°	339.1	275.7	194.1	153.7	141.0
62.5°	306.6	243.2	166.4	128.3	122.0
65°	273.3	209.1	137.8	110.9	108.5
67.5°	241.6	177.4	110.9	97.4	95.1
70°	208.3	146.6	91.9	84.0	80.8
72.5°	176.7	118.0	76.8	70.5	68.9
75°	145.8	90.3	63.4	57.8	57.0
77.5°	114.9	64.2	49.9	46.7	45.2
80°	86.3	45.9	38.0	34.9	34.9
82.5°	60.2	30.9	26.1	24.6	24.6
85°	34.1	17.4	15.1	15.1	15.1
87.5°	12.7	6.3	6.3	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0



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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	21.01	22.53	21.38	22.85	23.16	16.97	18.49	17.34	18.81	19.12
	3H	22.78	24.14	23.15	24.47	24.83	18.24	19.60	18.61	19.93	20.29
	4H	23.44	24.72	23.84	25.07	25.45	18.74	20.02	19.14	20.37	20.75
	6H	23.93	25.11	24.34	25.48	25.87	19.12	20.30	19.53	20.67	21.06
	8H	24.10	25.22	24.52	25.61	26.01	19.24	20.37	19.67	20.76	21.16
	12H	24.20	25.28	24.63	25.66	26.09	19.33	20.40	19.76	20.79	21.22
4H	2H	21.12	22.40	21.52	22.74	23.12	17.67	18.95	18.07	19.30	19.67
	3H	23.05	24.11	23.46	24.51	24.91	19.11	20.17	19.52	20.57	20.97
	4H	23.80	24.75	24.23	25.17	25.61	19.71	20.67	20.14	21.08	21.52
	6H	24.39	25.22	24.85	25.66	26.12	20.20	21.03	20.65	21.47	21.93
	8H	24.60	25.38	25.07	25.83	26.29	20.36	21.14	20.82	21.58	22.05
	12H	24.76	25.45	25.24	25.93	26.40	20.48	21.17	20.96	21.65	22.12
8H	4H	23.82	24.60	24.29	25.04	25.51	20.06	20.84	20.53	21.28	21.75
	6H	24.46	25.10	24.96	25.59	26.07	20.65	21.29	21.15	21.78	22.26
	8H	24.71	25.29	25.22	25.80	26.28	20.87	21.45	21.39	21.96	22.45
	12H	24.91	25.42	25.42	25.92	26.48	21.05	21.56	21.56	22.05	22.62
12H	4H	23.81	24.50	24.29	24.98	25.45	20.11	20.80	20.59	21.28	21.75
	6H	24.44	25.02	24.95	25.53	26.02	20.71	21.29	21.23	21.80	22.29
	8H	24.72	25.23	25.23	25.73	26.29	20.99	21.50	21.50	21.99	22.55