

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: P242376

Luminaire Tested: S122RDRP-S1005D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242376
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-S1005D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

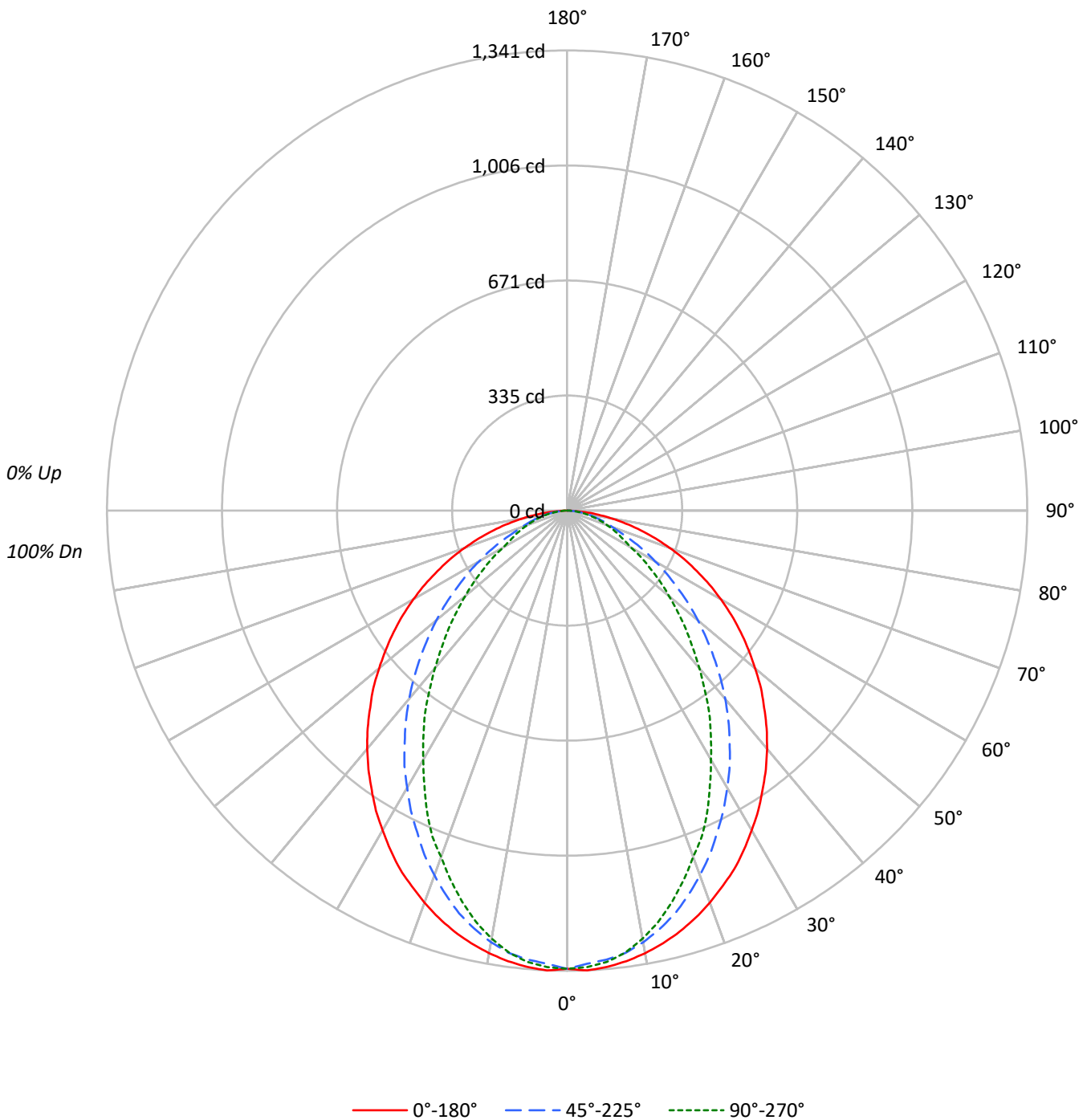
Lumens per Lamp: N/A
Luminaire Lumens: 2746.1 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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

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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	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°	25433	25433	25433
5°	25530	25115	25252
10°	25334	24703	24492
15°	25044	23971	23279
20°	24640	22926	21774
25°	24228	21738	20317
30°	23653	20516	18445
35°	23097	19191	16803
40°	22535	17816	14902
45°	21873	16276	13183
50°	21196	14716	11495
55°	20506	13041	9873
60°	19703	11276	8194
65°	18790	9478	7459
70°	17699	7808	6867
75°	16360	7117	6403
80°	14446	6362	5836
85°	11364	5027	5027

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21873 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	4.6
10°-20°	343.5	12.5
20°-30°	482.3	17.6
30°-40°	525.7	19.1
40°-50°	483.2	17.6
50°-60°	379.5	13.8
60°-70°	247.0	9.0
70°-80°	127.2	4.6
80°-90°	32.5	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°	951.0	34.6
0°-40°	1476.7	53.8
0°-60°	2339.4	85.2
0°-90°	2746.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2746.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1335	1335	1335	1335	1335	
5°	1335	1329	1314	1324	1321	127
15°	1270	1257	1216	1193	1180	358
25°	1153	1114	1034	985	967	530
35°	993	932	825	749	723	622
45°	812	731	604	518	489	627
55°	618	523	393	320	297	552
65°	417	319	210	169	166	413
75°	222	138	97	88	87	235
85°	52	27	23	23	23	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1335.2	1335.2	1335.2	1335.2	1335.2
2.5°	1341.3	1335.2	1321.9	1334.0	1331.6
5°	1335.2	1329.2	1313.5	1324.3	1320.7
7.5°	1324.3	1317.1	1300.2	1305.0	1299.0
10°	1309.8	1301.4	1277.2	1273.6	1266.3
12.5°	1291.7	1280.8	1248.2	1241.0	1227.7
15°	1270.0	1256.7	1215.6	1192.6	1180.5
17.5°	1244.6	1225.3	1174.5	1147.9	1128.6
20°	1215.6	1191.4	1131.0	1100.8	1074.2
22.5°	1184.2	1156.4	1086.3	1045.2	1027.1
25°	1152.8	1114.1	1034.3	984.8	966.7
27.5°	1115.3	1074.2	986.0	929.2	901.4
30°	1075.4	1029.5	932.8	871.2	838.6
32.5°	1036.8	981.2	882.1	809.6	779.4
35°	993.3	931.6	825.3	749.2	722.6
37.5°	951.0	884.5	772.1	688.8	658.5
40°	906.3	833.8	716.5	630.8	599.3
42.5°	860.3	783.0	661.0	571.5	541.3
45°	812.0	731.0	604.2	518.4	489.4
47.5°	766.1	680.3	549.8	464.0	437.4
50°	715.3	629.5	496.6	413.3	387.9
52.5°	665.8	575.2	445.9	366.1	343.2
55°	617.5	523.2	392.7	320.2	297.3
57.5°	567.9	471.3	345.6	277.9	258.6
60°	517.2	420.5	296.0	234.4	215.1
62.5°	467.6	371.0	253.8	195.8	186.1
65°	416.9	319.0	210.3	169.2	165.5
67.5°	368.5	270.7	169.2	148.6	145.0
70°	317.8	223.5	140.2	128.1	123.3
72.5°	269.5	180.0	117.2	107.5	105.1
75°	222.3	137.8	96.7	88.2	87.0
77.5°	175.2	97.9	76.1	71.3	68.9
80°	131.7	70.1	58.0	53.2	53.2
82.5°	91.8	47.1	39.9	37.5	37.5
85°	52.0	26.6	23.0	23.0	23.0
87.5°	19.3	9.7	9.7	8.5	8.5
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	22.48	24.00	22.84	24.31	24.63	18.44	19.96	18.80	20.27	20.59
	3H	24.24	25.61	24.62	25.94	26.30	19.70	21.07	20.08	21.40	21.76
	4H	24.91	26.19	25.31	26.54	26.92	20.20	21.49	20.60	21.83	22.21
	6H	25.40	26.58	25.81	26.95	27.34	20.59	21.77	21.00	22.14	22.53
	8H	25.56	26.69	25.99	27.08	27.48	20.71	21.84	21.14	22.23	22.63
	12H	25.67	26.75	26.10	27.13	27.56	20.79	21.87	21.22	22.25	22.68
4H	2H	22.58	23.86	22.98	24.21	24.59	19.13	20.41	19.53	20.76	21.14
	3H	24.52	25.58	24.93	25.98	26.38	20.58	21.64	20.99	22.04	22.44
	4H	25.27	26.22	25.70	26.64	27.08	21.18	22.13	21.61	22.55	22.99
	6H	25.86	26.69	26.31	27.13	27.59	21.67	22.50	22.12	22.94	23.40
	8H	26.07	26.85	26.53	27.29	27.76	21.83	22.60	22.29	23.05	23.52
	12H	26.22	26.92	26.71	27.40	27.87	21.94	22.64	22.43	23.12	23.59
8H	4H	25.29	26.07	25.75	26.51	26.98	21.53	22.31	21.99	22.75	23.22
	6H	25.93	26.57	26.42	27.06	27.54	22.12	22.76	22.61	23.25	23.73
	8H	26.18	26.75	26.69	27.26	27.75	22.34	22.92	22.85	23.43	23.91
	12H	26.38	26.89	26.89	27.38	27.95	22.52	23.03	23.03	23.52	24.09
12H	4H	25.27	25.97	25.76	26.45	26.92	21.57	22.27	22.06	22.75	23.22
	6H	25.91	26.49	26.42	26.99	27.48	22.18	22.76	22.69	23.27	23.76
	8H	26.19	26.70	26.70	27.19	27.76	22.45	22.96	22.96	23.46	24.02