

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: P242357

Luminaire Tested: S122RDRP-S1005D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242357
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-S1005D927-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

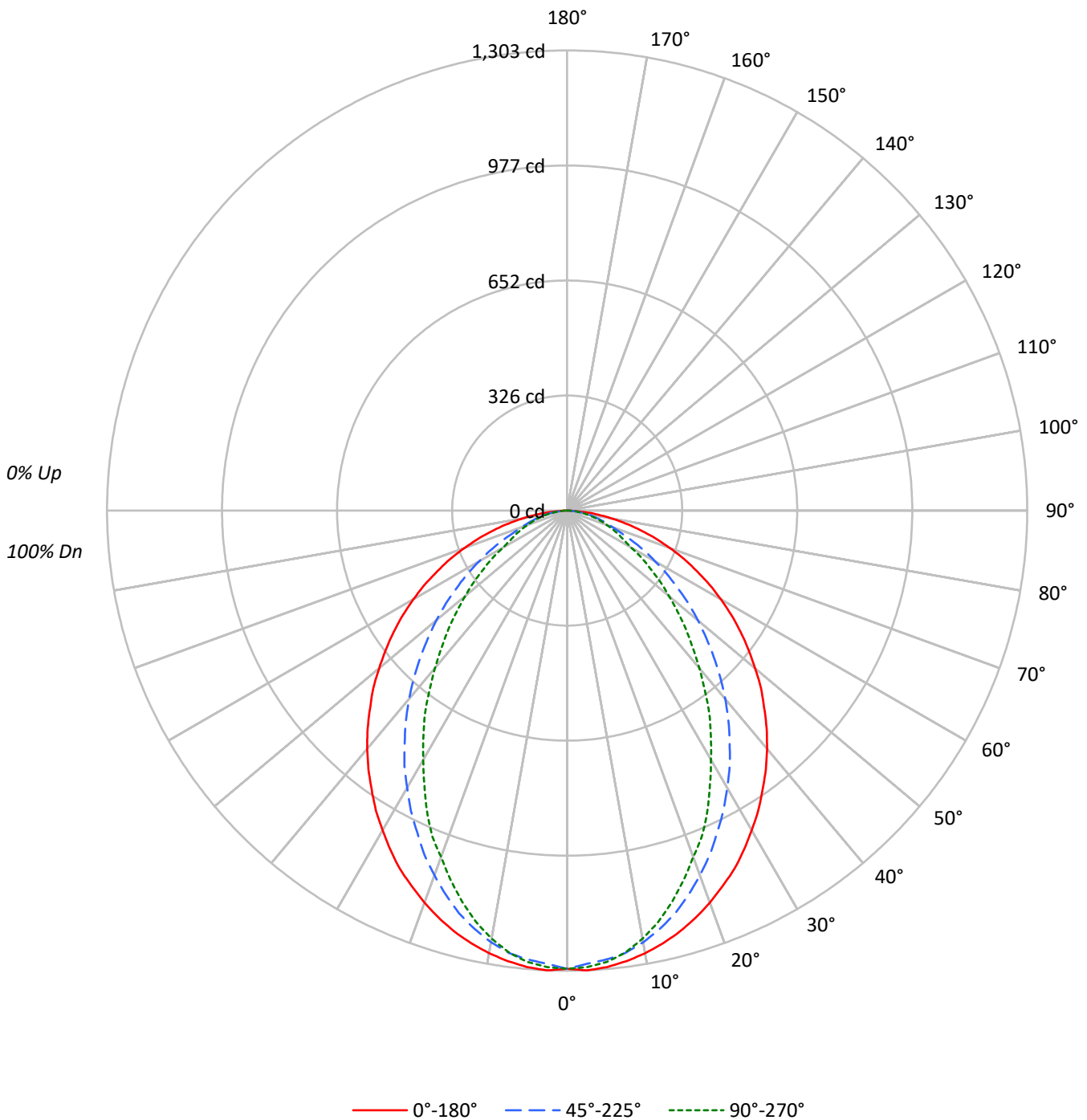
Lumens per Lamp: N/A
Luminaire Lumens: 2668.2 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (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

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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	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°	24712	24712	24712
5°	24807	24402	24537
10°	24616	24003	23798
15°	24334	23291	22620
20°	23941	22275	21158
25°	23541	21122	19741
30°	22982	19936	17921
35°	22441	18647	16326
40°	21896	17311	14479
45°	21254	15812	12809
50°	20598	14298	11169
55°	19925	12672	9591
60°	19143	10956	7962
65°	18258	9208	7247
70°	17198	7585	6672
75°	15896	6911	6219
80°	14040	6187	5671
85°	11037	4874	4874

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 21254 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.6	4.6
10°-20°	333.8	12.5
20°-30°	468.6	17.6
30°-40°	510.8	19.1
40°-50°	469.5	17.6
50°-60°	368.7	13.8
60°-70°	240.0	9.0
70°-80°	123.6	4.6
80°-90°	31.6	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°	924.0	34.6
0°-40°	1434.8	53.8
0°-60°	2273.1	85.2
0°-90°	2668.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2668.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1297	1297	1297	1297	1297	
5°	1297	1292	1276	1287	1283	123
15°	1234	1221	1181	1159	1147	348
25°	1120	1082	1005	957	939	515
35°	965	905	802	728	702	604
45°	789	710	587	504	476	609
55°	600	508	382	311	289	536
65°	405	310	204	164	161	402
75°	216	134	94	86	84	228
85°	50	26	22	22	22	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1297.4	1297.4	1297.4	1297.4	1297.4
2.5°	1303.2	1297.4	1284.4	1296.2	1293.8
5°	1297.4	1291.5	1276.2	1286.8	1283.3
7.5°	1286.8	1279.7	1263.3	1268.0	1262.1
10°	1272.7	1264.5	1241.0	1237.5	1230.4
12.5°	1255.1	1244.5	1212.8	1205.8	1192.9
15°	1234.0	1221.0	1181.1	1158.8	1147.1
17.5°	1209.3	1190.5	1141.2	1115.4	1096.6
20°	1181.1	1157.6	1098.9	1069.6	1043.8
22.5°	1150.6	1123.6	1055.5	1015.6	998.0
25°	1120.1	1082.5	1005.0	956.9	939.3
27.5°	1083.7	1043.8	958.0	902.9	875.9
30°	1044.9	1000.3	906.4	846.5	814.8
32.5°	1007.4	953.3	857.1	786.6	757.3
35°	965.1	905.2	801.9	727.9	702.1
37.5°	924.0	859.4	750.2	669.2	639.9
40°	880.6	810.1	696.2	612.9	582.3
42.5°	835.9	760.8	642.2	555.3	526.0
45°	789.0	710.3	587.0	503.7	475.5
47.5°	744.4	661.0	534.2	450.8	425.0
50°	695.1	611.7	482.5	401.5	376.9
52.5°	646.9	558.9	433.2	355.7	333.4
55°	600.0	508.4	381.6	311.1	288.8
57.5°	551.8	457.9	335.8	270.0	251.3
60°	502.5	408.6	287.6	227.8	209.0
62.5°	454.4	360.4	246.6	190.2	180.8
65°	405.1	310.0	204.3	164.4	160.8
67.5°	358.1	263.0	164.4	144.4	140.9
70°	308.8	217.2	136.2	124.5	119.8
72.5°	261.8	174.9	113.9	104.5	102.1
75°	216.0	133.8	93.9	85.7	84.5
77.5°	170.2	95.1	74.0	69.3	66.9
80°	128.0	68.1	56.4	51.7	51.7
82.5°	89.2	45.8	38.7	36.4	36.4
85°	50.5	25.8	22.3	22.3	22.3
87.5°	18.8	9.4	9.4	8.2	8.2
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	22.38	23.90	22.74	24.21	24.53	18.34	19.86	18.70	20.17	20.49
	3H	24.14	25.51	24.52	25.84	26.20	19.60	20.97	19.98	21.30	21.66
	4H	24.81	26.09	25.21	26.44	26.82	20.10	21.39	20.50	21.73	22.11
	6H	25.30	26.48	25.71	26.85	27.24	20.49	21.67	20.90	22.04	22.43
	8H	25.46	26.59	25.89	26.98	27.38	20.61	21.74	21.04	22.13	22.53
	12H	25.57	26.65	26.00	27.03	27.46	20.69	21.77	21.12	22.15	22.58
4H	2H	22.48	23.76	22.88	24.11	24.49	19.03	20.31	19.43	20.66	21.04
	3H	24.42	25.48	24.83	25.88	26.28	20.48	21.54	20.89	21.94	22.34
	4H	25.16	26.12	25.60	26.54	26.98	21.08	22.03	21.51	22.45	22.89
	6H	25.76	26.59	26.21	27.03	27.49	21.57	22.40	22.02	22.84	23.30
	8H	25.97	26.75	26.43	27.19	27.66	21.73	22.50	22.19	22.95	23.42
	12H	26.12	26.82	26.61	27.30	27.77	21.84	22.54	22.33	23.02	23.49
8H	4H	25.19	25.97	25.65	26.41	26.88	21.43	22.21	21.89	22.65	23.12
	6H	25.83	26.47	26.32	26.96	27.44	22.02	22.66	22.51	23.15	23.63
	8H	26.08	26.65	26.59	27.16	27.65	22.24	22.82	22.75	23.33	23.81
	12H	26.28	26.79	26.79	27.28	27.85	22.42	22.93	22.93	23.42	23.98
12H	4H	25.17	25.87	25.66	26.35	26.82	21.47	22.17	21.96	22.65	23.12
	6H	25.81	26.38	26.32	26.89	27.38	22.08	22.66	22.59	23.17	23.66
	8H	26.09	26.60	26.60	27.09	27.66	22.35	22.86	22.86	23.36	23.92