

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: P242384

Luminaire Tested: S122RDRP-S675D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242384
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-S675D940-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

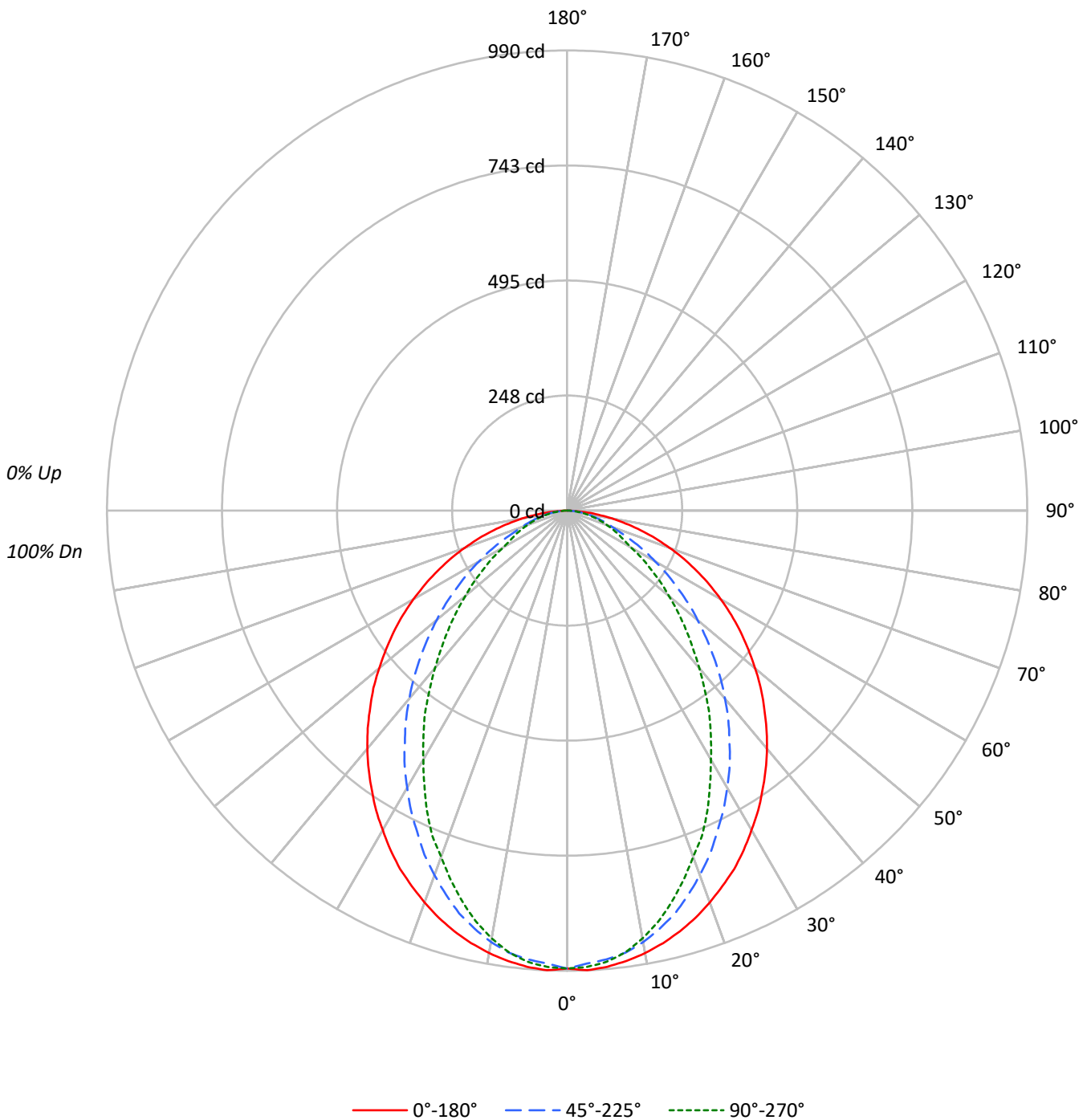
Lumens per Lamp: N/A
Luminaire Lumens: 2026.5 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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												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	78	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°	18768	18768	18768
5°	18839	18533	18635
10°	18696	18229	18075
15°	18481	17690	17180
20°	18184	16917	16068
25°	17879	16042	14993
30°	17455	15141	13610
35°	17044	14161	12398
40°	16630	13149	10998
45°	16141	12011	9727
50°	15643	10860	8481
55°	15133	9624	7286
60°	14541	8324	6046
65°	13864	6995	5508
70°	13060	5759	5068
75°	12077	5247	4725
80°	10662	4695	4300
85°	8370	3693	3693

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16141 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	4.6
10°-20°	253.5	12.5
20°-30°	355.9	17.6
30°-40°	388.0	19.1
40°-50°	356.6	17.6
50°-60°	280.0	13.8
60°-70°	182.3	9.0
70°-80°	93.8	4.6
80°-90°	23.9	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°	701.8	34.6
0°-40°	1089.7	53.8
0°-60°	1726.4	85.2
0°-90°	2026.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2026.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	985	981	969	977	975	93
15°	937	927	897	880	871	264
25°	851	822	763	727	713	391
35°	733	688	609	553	533	459
45°	599	540	446	382	361	463
55°	456	386	290	236	219	407
65°	308	235	155	125	122	305
75°	164	102	71	65	64	174
85°	38	20	17	17	17	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.3	985.3	985.3	985.3	985.3
2.5°	989.8	985.3	975.5	984.4	982.7
5°	985.3	980.9	969.3	977.3	974.6
7.5°	977.3	972.0	959.5	963.0	958.6
10°	966.6	960.4	942.5	939.9	934.5
12.5°	953.2	945.2	921.1	915.8	906.0
15°	937.2	927.4	897.1	880.1	871.2
17.5°	918.5	904.2	866.7	847.1	832.9
20°	897.1	879.2	834.6	812.3	792.7
22.5°	873.9	853.4	801.6	771.3	758.0
25°	850.7	822.2	763.3	726.7	713.4
27.5°	823.0	792.7	727.6	685.7	665.2
30°	793.6	759.7	688.4	642.9	618.8
32.5°	765.1	724.1	650.9	597.4	575.2
35°	733.0	687.5	609.0	552.9	533.2
37.5°	701.8	652.7	569.8	508.3	486.0
40°	668.8	615.3	528.8	465.5	442.3
42.5°	634.9	577.8	487.8	421.8	399.5
45°	599.2	539.5	445.9	382.5	361.1
47.5°	565.3	502.0	405.7	342.4	322.8
50°	527.9	464.6	366.5	305.0	286.2
52.5°	491.3	424.5	329.0	270.2	253.2
55°	455.7	386.1	289.8	236.3	219.4
57.5°	419.1	347.8	255.0	205.1	190.8
60°	381.7	310.3	218.5	173.0	158.7
62.5°	345.1	273.8	187.3	144.5	137.3
65°	307.6	235.4	155.2	124.8	122.2
67.5°	272.0	199.7	124.8	109.7	107.0
70°	234.5	165.0	103.4	94.5	91.0
72.5°	198.9	132.9	86.5	79.4	77.6
75°	164.1	101.7	71.3	65.1	64.2
77.5°	129.3	72.2	56.2	52.6	50.8
80°	97.2	51.7	42.8	39.2	39.2
82.5°	67.8	34.8	29.4	27.6	27.6
85°	38.3	19.6	16.9	16.9	16.9
87.5°	14.3	7.1	7.1	6.2	6.2
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	21.42	22.94	21.79	23.26	23.57	17.38	18.90	17.75	19.22	19.53
	3H	23.19	24.55	23.57	24.88	25.24	18.65	20.01	19.03	20.34	20.70
	4H	23.85	25.13	24.25	25.48	25.86	19.15	20.43	19.55	20.78	21.16
	6H	24.34	25.53	24.76	25.89	26.28	19.53	20.71	19.94	21.08	21.47
	8H	24.51	25.64	24.94	26.02	26.43	19.65	20.78	20.08	21.17	21.57
	12H	24.61	25.69	25.04	26.07	26.50	19.74	20.81	20.17	21.20	21.62
4H	2H	21.53	22.81	21.93	23.16	23.53	18.08	19.36	18.48	19.71	20.09
	3H	23.46	24.52	23.87	24.92	25.32	19.52	20.58	19.93	20.98	21.39
	4H	24.21	25.17	24.64	25.58	26.02	20.12	21.08	20.55	21.49	21.93
	6H	24.80	25.63	25.26	26.08	26.54	20.61	21.44	21.07	21.88	22.34
	8H	25.02	25.79	25.48	26.24	26.70	20.77	21.55	21.23	21.99	22.46
	12H	25.17	25.86	25.65	26.34	26.81	20.89	21.58	21.37	22.06	22.53
8H	4H	24.23	25.01	24.70	25.46	25.92	20.48	21.25	20.94	21.70	22.16
	6H	24.87	25.51	25.37	26.00	26.48	21.06	21.70	21.56	22.19	22.67
	8H	25.12	25.70	25.64	26.21	26.70	21.28	21.86	21.80	22.37	22.86
	12H	25.33	25.84	25.84	26.33	26.89	21.46	21.97	21.97	22.46	23.03
12H	4H	24.22	24.91	24.70	25.39	25.86	20.52	21.21	21.00	21.69	22.16
	6H	24.85	25.43	25.37	25.94	26.43	21.12	21.70	21.64	22.21	22.70
	8H	25.14	25.65	25.65	26.14	26.70	21.40	21.91	21.91	22.40	22.96