

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: P242271

Luminaire Tested: S122DRP-S675D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S675D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

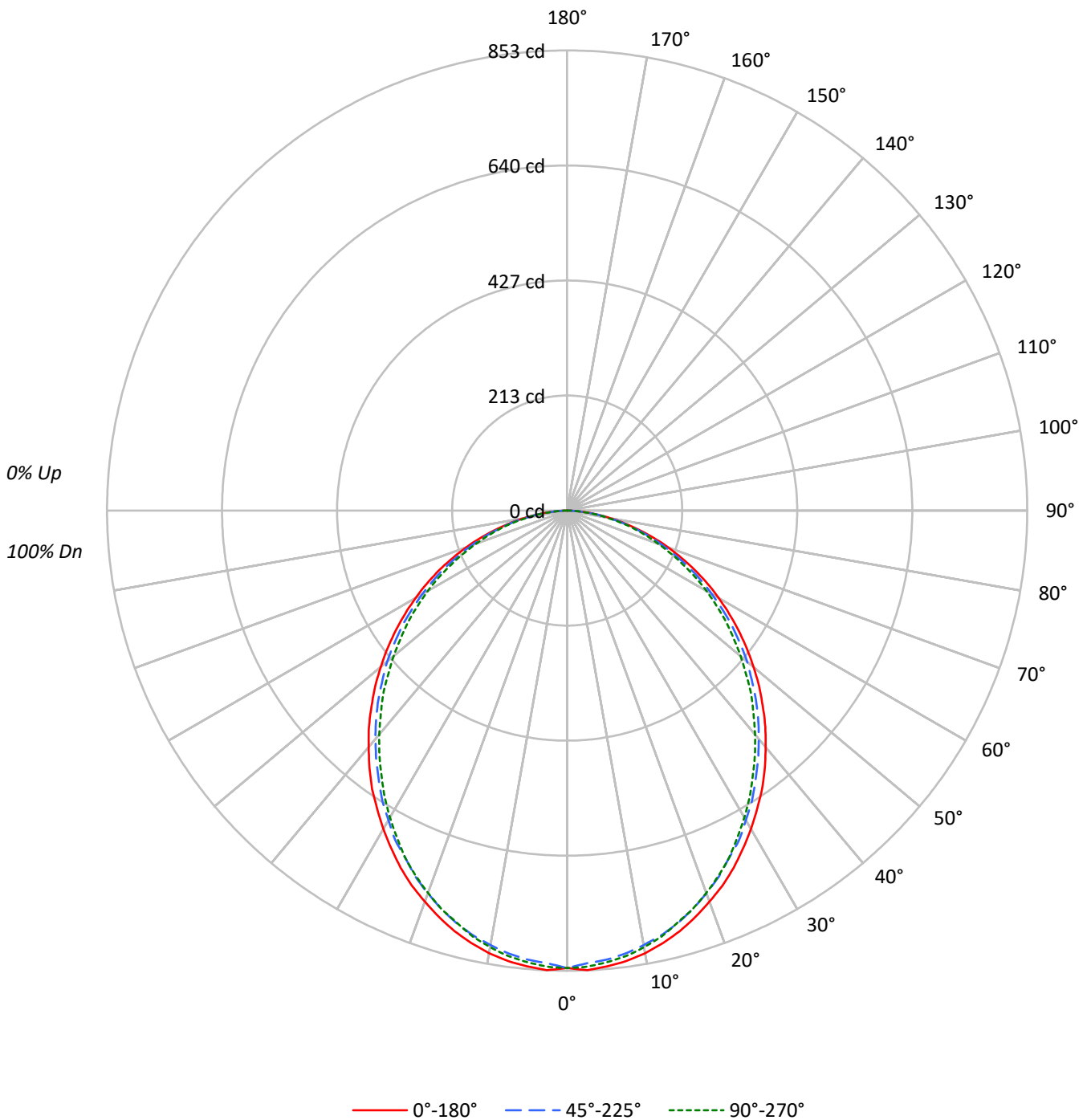
Lumens per Lamp: N/A
Luminaire Lumens: 2157.2 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
Input Voltage (V): 120
Input Current (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: P242271

CATALOG NUMBER: S122DRP-S675D930-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242271

CATALOG NUMBER: S122DRP-S675D930-X4F0-XX-UDD-F-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71																												
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60																												
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51																												
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45																												
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39																												
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35																												
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	32	27	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16151	16151	16151
5°	16212	15979	16073
10°	16115	15816	15895
15°	15916	15612	15594
20°	15634	15304	15288
25°	15353	14924	14924
30°	14991	14578	14453
35°	14654	14161	13954
40°	14230	13745	13482
45°	13814	13331	13003
50°	13362	12902	12443
55°	12888	12400	11939
60°	12362	11802	11368
65°	11795	11209	10695
70°	11077	10487	9991
75°	10082	9663	9420
80°	8940	8677	8227
85°	7300	6950	6229

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13814 cd/sqm

TEST NUMBER: P242271

CATALOG NUMBER: S122DRP-S675D930-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	3.7
10°-20°	224.5	10.4
20°-30°	330.0	15.3
30°-40°	383.2	17.8
40°-50°	382.8	17.7
50°-60°	333.8	15.5
60°-70°	246.7	11.4
70°-80°	139.6	6.5
80°-90°	36.8	1.7
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°	634.3	29.4
0°-40°	1017.6	47.2
0°-60°	1734.1	80.4
0°-90°	2157.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2157.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	848	845	836	842	841	80
15°	807	802	792	795	791	227
25°	730	724	710	712	710	336
35°	630	622	609	604	600	394
45°	513	507	495	486	483	396
55°	388	383	373	364	360	347
65°	262	257	249	241	237	259
75°	137	135	131	126	128	146
85°	33	33	32	29	28	39
90°	0	0	0	0	0	

TEST NUMBER: P242271

CATALOG NUMBER: S122DRP-S675D930-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	847.9	847.9	847.9	847.9	847.9
2.5°	852.8	848.7	839.8	847.9	846.3
5°	847.9	844.7	835.7	842.2	840.6
7.5°	842.2	837.3	828.3	834.9	833.2
10°	833.2	827.5	817.7	824.3	821.8
12.5°	821.0	816.1	806.3	810.4	808.8
15°	807.1	802.3	791.7	794.9	790.8
17.5°	790.0	785.1	774.5	778.6	774.5
20°	771.3	766.4	755.0	757.4	754.2
22.5°	752.5	745.2	734.6	734.6	733.0
25°	730.5	724.0	710.1	711.8	710.1
27.5°	706.1	700.3	689.7	687.3	683.2
30°	681.6	675.1	662.8	660.4	657.1
32.5°	655.5	650.6	637.6	632.7	629.4
35°	630.2	622.1	609.0	604.1	600.1
37.5°	601.7	594.4	581.3	575.6	571.5
40°	572.3	565.8	552.8	545.4	542.2
42.5°	543.8	537.3	524.2	516.1	511.2
45°	512.8	507.1	494.9	485.9	482.7
47.5°	482.7	477.0	463.9	454.9	450.0
50°	450.9	446.8	435.4	424.0	419.9
52.5°	419.9	414.2	403.6	394.6	388.9
55°	388.1	383.2	373.4	363.6	359.5
57.5°	356.3	352.2	341.6	331.8	328.6
60°	324.5	321.2	309.8	300.8	298.4
62.5°	293.5	287.8	279.6	271.5	268.2
65°	261.7	256.8	248.7	241.3	237.3
67.5°	229.1	225.0	217.7	212.0	208.7
70°	198.9	195.7	188.3	182.6	179.4
72.5°	168.0	164.7	160.6	154.9	152.5
75°	137.0	135.3	131.3	126.4	128.0
77.5°	109.3	106.0	104.4	101.9	99.5
80°	81.5	80.7	79.1	76.6	75.0
82.5°	55.4	55.4	54.6	51.4	51.4
85°	33.4	32.6	31.8	29.4	28.5
87.5°	14.7	13.0	11.4	9.0	8.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242271
 CATALOG NUMBER: S122DRP-S675D930-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	20.95	22.56	21.31	22.87	23.19	20.50	22.11	20.87	22.43	22.74
	3H	22.70	24.15	23.07	24.48	24.84	22.21	23.66	22.58	23.99	24.35
	4H	23.34	24.71	23.74	25.06	25.44	22.85	24.22	23.25	24.57	24.94
	6H	23.81	25.08	24.22	25.45	25.84	23.31	24.58	23.72	24.95	25.34
	8H	23.96	25.17	24.38	25.56	25.96	23.45	24.66	23.88	25.05	25.45
	12H	24.05	25.21	24.48	25.59	26.02	23.53	24.69	23.96	25.08	25.51
4H	2H	21.51	22.88	21.91	23.23	23.60	21.16	22.52	21.55	22.87	23.25
	3H	23.48	24.63	23.89	25.03	25.43	23.08	24.22	23.49	24.62	25.02
	4H	24.26	25.30	24.69	25.71	26.15	23.84	24.87	24.27	25.29	25.72
	6H	24.86	25.76	25.31	26.20	26.66	24.42	25.33	24.88	25.77	26.23
	8H	25.05	25.89	25.51	26.33	26.80	24.61	25.45	25.07	25.90	26.36
	12H	25.18	25.94	25.66	26.41	26.88	24.73	25.49	25.21	25.96	26.43
8H	4H	24.53	25.38	24.99	25.82	26.29	24.16	25.01	24.62	25.45	25.91
	6H	25.25	25.95	25.74	26.44	26.91	24.87	25.57	25.36	26.06	26.53
	8H	25.51	26.14	26.02	26.64	27.13	25.12	25.75	25.63	26.25	26.74
	12H	25.71	26.26	26.21	26.75	27.32	25.29	25.85	25.80	26.34	26.90
12H	4H	24.56	25.32	25.04	25.80	26.26	24.19	24.95	24.68	25.43	25.90
	6H	25.29	25.92	25.80	26.43	26.92	24.92	25.56	25.43	26.06	26.55
	8H	25.61	26.16	26.11	26.65	27.22	25.23	25.79	25.74	26.28	26.84