

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: P243116

Luminaire Tested: S122DRP-H485D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H485D830-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

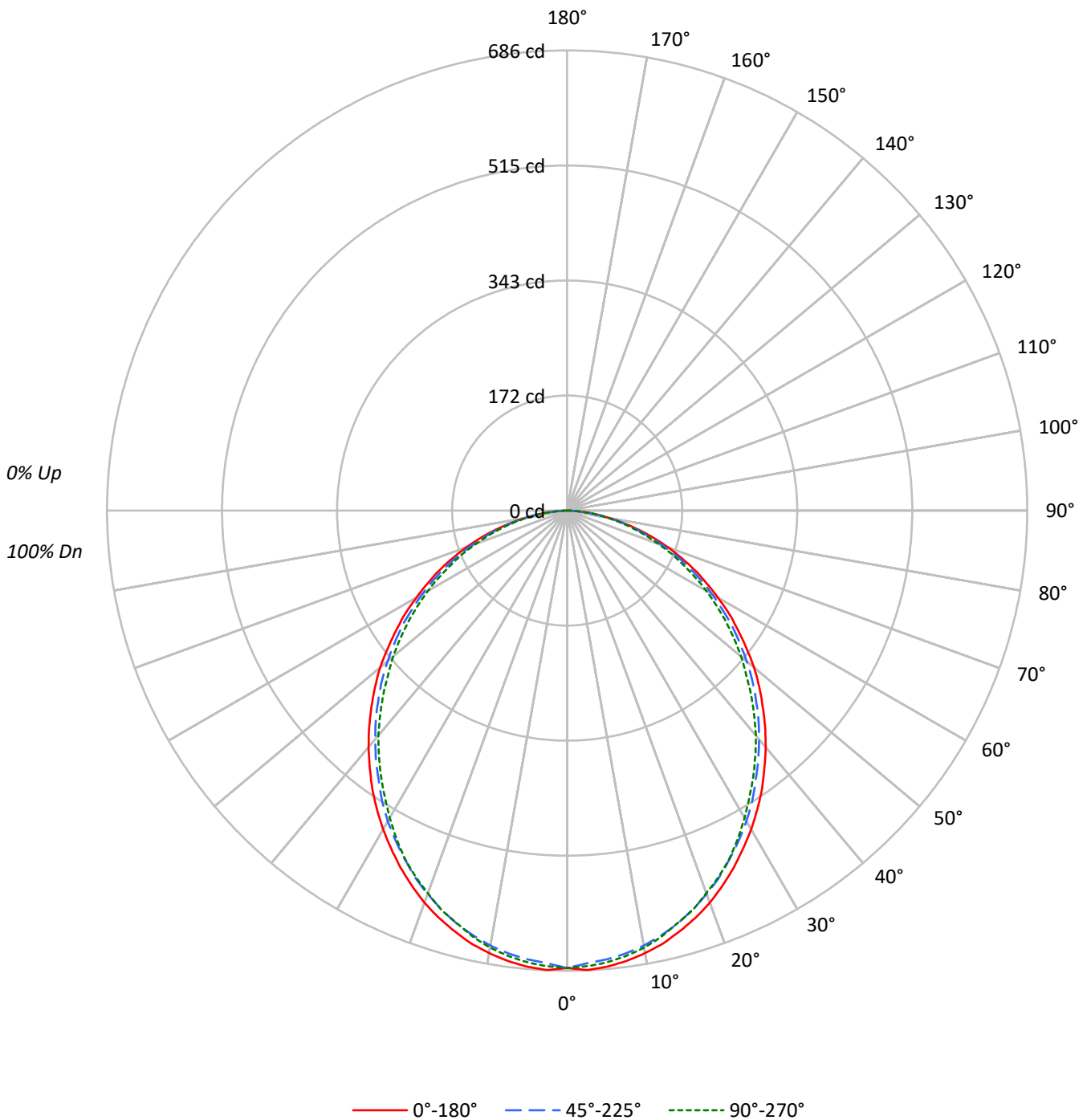
Lumens per Lamp: N/A
Luminaire Lumens: 1734.9 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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: P243116

CATALOG NUMBER: S122DRP-H485D830-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243116

CATALOG NUMBER: S122DRP-H485D830-X4F0-XX-UDD-F-W

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	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	28	38	32	27	37	32	27	26																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12987	12987	12987
5°	13048	12843	12927
10°	12955	12736	12798
15°	12800	12565	12552
20°	12610	12330	12304
25°	12347	12045	12032
30°	12066	11760	11637
35°	11778	11396	11250
40°	11453	11062	10891
45°	11104	10716	10444
50°	10780	10354	10037
55°	10328	9976	9601
60°	9886	9505	9143
65°	9460	9005	8609
70°	8888	8432	8014
75°	8095	7772	7396
80°	7031	6823	6549
85°	6032	5354	4939

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11104 cd/sqm



TEST NUMBER: P243116

CATALOG NUMBER: S122DRP-H485D830-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	3.7
10°-20°	180.7	10.4
20°-30°	265.7	15.3
30°-40°	308.5	17.8
40°-50°	308.1	17.8
50°-60°	268.3	15.5
60°-70°	198.4	11.4
70°-80°	111.9	6.4
80°-90°	29.2	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°	510.6	29.4
0°-40°	819.0	47.2
0°-60°	1395.4	80.4
0°-90°	1734.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1734.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	682	679	672	677	676	65
15°	649	646	637	640	636	183
25°	588	582	573	572	572	270
35°	506	501	490	486	484	316
45°	412	408	398	392	388	318
55°	311	308	300	292	289	279
65°	210	207	200	194	191	207
75°	110	109	106	102	100	117
85°	28	26	24	23	23	31
90°	0	0	0	0	0	



TEST NUMBER: P243116

CATALOG NUMBER: S122DRP-H485D830-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	681.8	681.8	681.8	681.8	681.8
2.5°	685.6	682.4	675.5	681.2	679.9
5°	682.4	679.3	671.7	677.4	676.1
7.5°	677.4	674.2	666.1	671.7	669.8
10°	669.8	666.1	658.5	662.3	661.7
12.5°	661.1	657.3	648.5	651.6	650.4
15°	649.1	646.0	637.2	639.7	636.5
17.5°	636.5	631.5	623.3	625.9	624.0
20°	622.1	617.1	608.3	609.5	607.0
22.5°	605.1	600.1	591.9	591.9	590.7
25°	587.5	582.5	573.1	572.5	572.5
27.5°	568.1	563.7	554.2	552.3	551.1
30°	548.6	544.8	534.7	531.0	529.1
32.5°	527.8	522.8	513.4	509.0	505.8
35°	506.5	500.8	490.1	485.7	483.8
37.5°	483.2	477.6	468.1	464.4	460.6
40°	460.6	455.6	444.9	439.2	438.0
42.5°	436.7	431.7	422.3	416.0	412.2
45°	412.2	407.8	397.8	391.5	387.7
47.5°	388.3	383.3	374.5	367.0	361.9
50°	363.8	358.8	349.4	340.6	338.7
52.5°	336.8	333.7	324.2	316.1	313.6
55°	311.0	308.5	300.4	292.2	289.1
57.5°	286.5	283.4	274.0	267.7	263.9
60°	259.5	257.6	249.5	242.6	240.0
62.5°	234.4	231.9	225.0	218.0	214.9
65°	209.9	206.7	199.8	193.5	191.0
67.5°	184.7	181.6	175.9	170.9	168.4
70°	159.6	157.1	151.4	147.0	143.9
72.5°	135.1	132.6	127.6	123.2	122.5
75°	110.0	109.3	105.6	101.8	100.5
77.5°	86.7	86.1	83.6	81.7	80.4
80°	64.1	64.1	62.2	60.3	59.7
82.5°	44.0	44.6	42.7	41.5	41.5
85°	27.6	26.4	24.5	23.2	22.6
87.5°	11.3	9.4	8.8	6.9	6.3
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243116
 CATALOG NUMBER: S122DRP-H485D830-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	20.19	21.80	20.56	22.12	22.43	19.76	21.37	20.13	21.69	22.00
	3H	21.95	23.40	22.32	23.73	24.09	21.46	22.92	21.84	23.24	23.61
	4H	22.59	23.96	22.99	24.31	24.68	22.09	23.46	22.49	23.81	24.18
	6H	23.05	24.32	23.46	24.68	25.07	22.55	23.82	22.96	24.18	24.57
	8H	23.19	24.40	23.61	24.79	25.19	22.69	23.90	23.12	24.29	24.69
	12H	23.28	24.44	23.71	24.82	25.25	22.77	23.93	23.20	24.31	24.74
4H	2H	20.75	22.12	21.15	22.47	22.84	20.41	21.78	20.81	22.13	22.50
	3H	22.73	23.87	23.14	24.27	24.67	22.33	23.47	22.74	23.87	24.27
	4H	23.51	24.54	23.94	24.96	25.39	23.07	24.11	23.51	24.52	24.96
	6H	24.09	25.00	24.55	25.44	25.89	23.66	24.56	24.11	25.00	25.46
	8H	24.28	25.12	24.74	25.57	26.03	23.84	24.69	24.30	25.13	25.59
	12H	24.41	25.17	24.89	25.65	26.12	23.96	24.72	24.44	25.19	25.66
8H	4H	23.78	24.62	24.24	25.07	25.53	23.40	24.24	23.86	24.68	25.15
	6H	24.48	25.18	24.97	25.67	26.15	24.09	24.79	24.59	25.28	25.76
	8H	24.73	25.36	25.24	25.87	26.36	24.34	24.97	24.85	25.48	25.96
	12H	24.94	25.50	25.45	25.99	26.55	24.52	25.08	25.03	25.57	26.13
12H	4H	23.80	24.56	24.28	25.04	25.51	23.43	24.19	23.91	24.67	25.13
	6H	24.52	25.15	25.03	25.66	26.15	24.15	24.78	24.66	25.29	25.77
	8H	24.83	25.39	25.34	25.88	26.44	24.45	25.01	24.96	25.50	26.06