

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: P242860

Luminaire Tested: S125DRP-S610D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S610D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

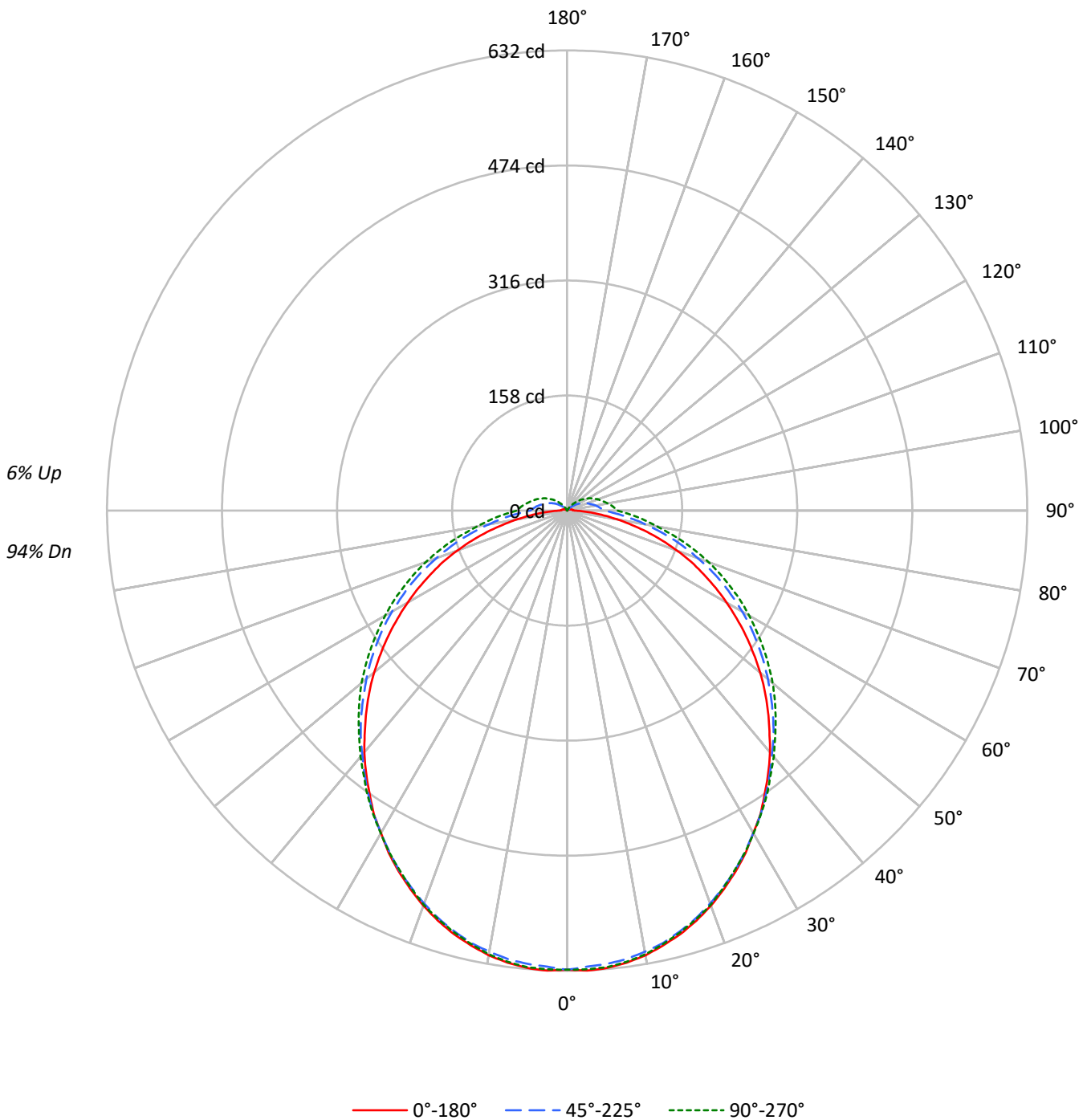
Lumens per Lamp: N/A
Luminaire Lumens: 1953.4 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 18.8
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: P242860

CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P242860

CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94																												
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76																												
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63																												
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53																												
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45																												
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39																												
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34																												
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30																												
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27																												
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24																												
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4482	4482	4482
5°	4491	4395	4408
10°	4458	4313	4304
15°	4405	4216	4174
20°	4333	4096	4044
25°	4248	3969	3885
30°	4145	3829	3741
35°	4048	3700	3608
40°	3950	3565	3474
45°	3838	3448	3355
50°	3732	3321	3249
55°	3604	3201	3124
60°	3466	3065	2997
65°	3320	2921	2854
70°	3153	2726	2706
75°	2893	2537	2525
80°	2550	2307	2325
85°	2226	2139	2245

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3838 cd/sqm



TEST NUMBER: P242860

CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	3.1
10°-20°	169.4	8.7
20°-30°	251.9	12.9
30°-40°	298.3	15.3
40°-50°	308.4	15.8
50°-60°	284.1	14.5
60°-70°	229.7	11.8
70°-80°	153.7	7.9
80°-90°	79.4	4.1
90°-100°	44.7	2.3
100°-110°	33.0	1.7
110°-120°	22.1	1.1
120°-130°	12.5	0.6
130°-140°	5.5	0.3
140°-150°	1.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	481.0	24.6
0°-40°	779.3	39.9
0°-60°	1371.8	70.2
0°-90°	1834.6	93.9
90°-120°	99.8	5.1
90°-150°	118.8	6.1
90°-180°	119.0	6.1
0°-180°	1953.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	631	631	631	631	631	
5°	631	629	625	630	629	60
15°	602	603	598	602	600	170
25°	547	549	545	548	545	252
35°	474	478	476	478	478	296
45°	390	397	400	404	405	301
55°	300	310	320	326	329	268
65°	206	221	236	245	247	205
75°	114	130	150	162	165	121
85°	34	54	76	90	95	35
90°	10	30	51	65	69	7
95°	8	24	45	59	63	6
105°	6	16	34	46	51	6
115°	4	8	24	35	39	4
125°	2	2	14	24	27	2
135°	1	1	5	13	16	1
145°	1	0	0	3	6	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P242860

CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.6	630.6	630.6	630.6	630.6
2.5°	632.4	631.2	626.9	631.2	630.6
5°	630.6	629.3	625.0	630.0	629.3
7.5°	626.3	625.6	621.3	625.6	625.0
10°	620.1	620.1	615.1	619.5	618.8
12.5°	611.4	612.0	608.3	611.4	609.6
15°	602.1	602.8	598.4	602.1	599.7
17.5°	590.4	591.6	587.3	590.4	588.5
20°	577.4	578.7	574.3	576.2	576.2
22.5°	562.6	565.1	560.1	562.6	560.7
25°	547.1	549.0	545.3	547.7	544.7
27.5°	530.4	532.9	528.6	530.4	529.2
30°	511.3	515.0	511.3	512.5	511.9
32.5°	494.0	497.0	494.6	495.8	495.2
35°	473.6	477.9	476.0	477.9	477.9
37.5°	453.8	457.5	456.9	459.3	458.7
40°	433.4	438.3	437.7	440.2	441.4
42.5°	411.1	417.9	419.8	422.9	422.9
45°	390.1	396.9	400.0	404.3	404.9
47.5°	368.5	374.6	379.6	385.8	387.0
50°	346.2	353.0	359.8	366.6	368.5
52.5°	322.7	331.4	340.0	347.4	348.7
55°	299.8	309.7	319.6	326.4	328.9
57.5°	276.3	288.1	299.2	306.6	308.5
60°	252.9	265.2	277.6	286.9	288.7
62.5°	230.0	242.3	255.9	266.5	268.9
65°	206.5	220.7	235.5	244.8	247.3
67.5°	184.8	198.4	213.3	224.4	227.5
70°	160.7	175.0	191.0	202.8	206.5
72.5°	137.2	152.1	170.0	183.0	185.5
75°	113.8	129.8	149.6	162.0	165.1
77.5°	90.9	109.4	128.0	141.6	144.0
80°	69.9	88.4	109.4	123.0	125.5
82.5°	50.7	70.5	92.1	105.1	110.0
85°	34.0	54.4	76.0	89.6	94.6
87.5°	21.6	41.4	62.4	76.7	81.0
90°	9.9	29.7	50.7	64.9	69.2
92.5°	8.7	26.6	48.2	61.8	66.1
95°	8.0	24.1	45.1	58.7	63.1
97.5°	7.4	22.3	42.7	55.6	60.0
100°	6.8	19.8	39.6	52.5	56.3
102.5°	6.2	17.9	37.1	49.5	53.2
105°	5.6	15.5	34.0	46.4	50.7
107.5°	4.9	13.6	31.5	43.9	47.6
110°	4.3	11.7	29.1	40.8	45.1



TEST NUMBER: P242860

CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.3	9.9	26.6	37.7	42.0
115°	3.7	8.0	24.1	35.2	38.9
117.5°	3.1	6.2	21.6	32.1	36.5
120°	3.1	4.9	19.2	29.7	33.4
122.5°	2.5	3.1	16.7	26.6	30.3
125°	2.5	1.9	14.2	24.1	27.2
127.5°	1.9	1.2	11.7	21.0	24.7
130°	1.9	1.2	9.9	18.5	21.6
132.5°	1.2	1.2	7.4	16.1	18.5
135°	1.2	0.6	4.9	13.0	16.1
137.5°	1.2	0.6	3.1	10.5	13.0
140°	0.6	0.6	1.2	8.0	10.5
142.5°	0.6	0.0	0.0	5.6	8.0
145°	0.6	0.0	0.0	3.1	5.6
147.5°	0.0	0.0	0.0	1.2	2.5
150°	0.0	0.0	0.0	0.0	0.6
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242860
 CATALOG NUMBER: S125DRP-S610D935-X4F0-XX-UDD-D-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	15.13	16.66	15.59	17.10	17.57	16.17	17.70	16.63	18.14	18.61
	3H	16.78	18.17	17.25	18.62	19.13	18.35	19.74	18.82	20.19	20.70
	4H	17.35	18.67	17.84	19.14	19.65	19.31	20.63	19.80	21.10	21.62
	6H	17.73	18.95	18.23	19.44	19.97	20.21	21.44	20.71	21.92	22.45
	8H	17.83	19.01	18.35	19.51	20.05	20.64	21.82	21.16	22.32	22.86
	12H	17.89	19.02	18.42	19.52	20.09	21.10	22.23	21.62	22.72	23.30
4H	2H	15.89	17.21	16.38	17.68	18.20	16.71	18.02	17.20	18.49	19.01
	3H	17.77	18.89	18.27	19.40	19.94	19.10	20.22	19.60	20.73	21.27
	4H	18.47	19.49	19.00	20.01	20.59	20.21	21.23	20.74	21.75	22.33
	6H	18.98	19.88	19.53	20.43	21.02	21.28	22.17	21.82	22.72	23.31
	8H	19.13	19.97	19.68	20.52	21.13	21.80	22.64	22.35	23.19	23.79
	12H	19.23	20.00	19.80	20.57	21.18	22.35	23.12	22.92	23.69	24.30
8H	4H	18.96	19.80	19.51	20.35	20.95	20.47	21.31	21.02	21.86	22.46
	6H	19.62	20.33	20.20	20.92	21.53	21.69	22.40	22.27	22.99	23.60
	8H	19.86	20.50	20.46	21.10	21.72	22.33	22.97	22.93	23.57	24.19
	12H	20.04	20.61	20.64	21.20	21.89	23.04	23.61	23.64	24.20	24.89
12H	4H	19.06	19.82	19.63	20.40	21.00	20.49	21.25	21.06	21.83	22.44
	6H	19.78	20.42	20.38	21.03	21.65	21.74	22.38	22.34	22.98	23.61
	8H	20.10	20.67	20.70	21.26	21.95	22.45	23.02	23.04	23.61	24.30