

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: P242836

Luminaire Tested: S125DRP-S610D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242836
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-S610D927-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

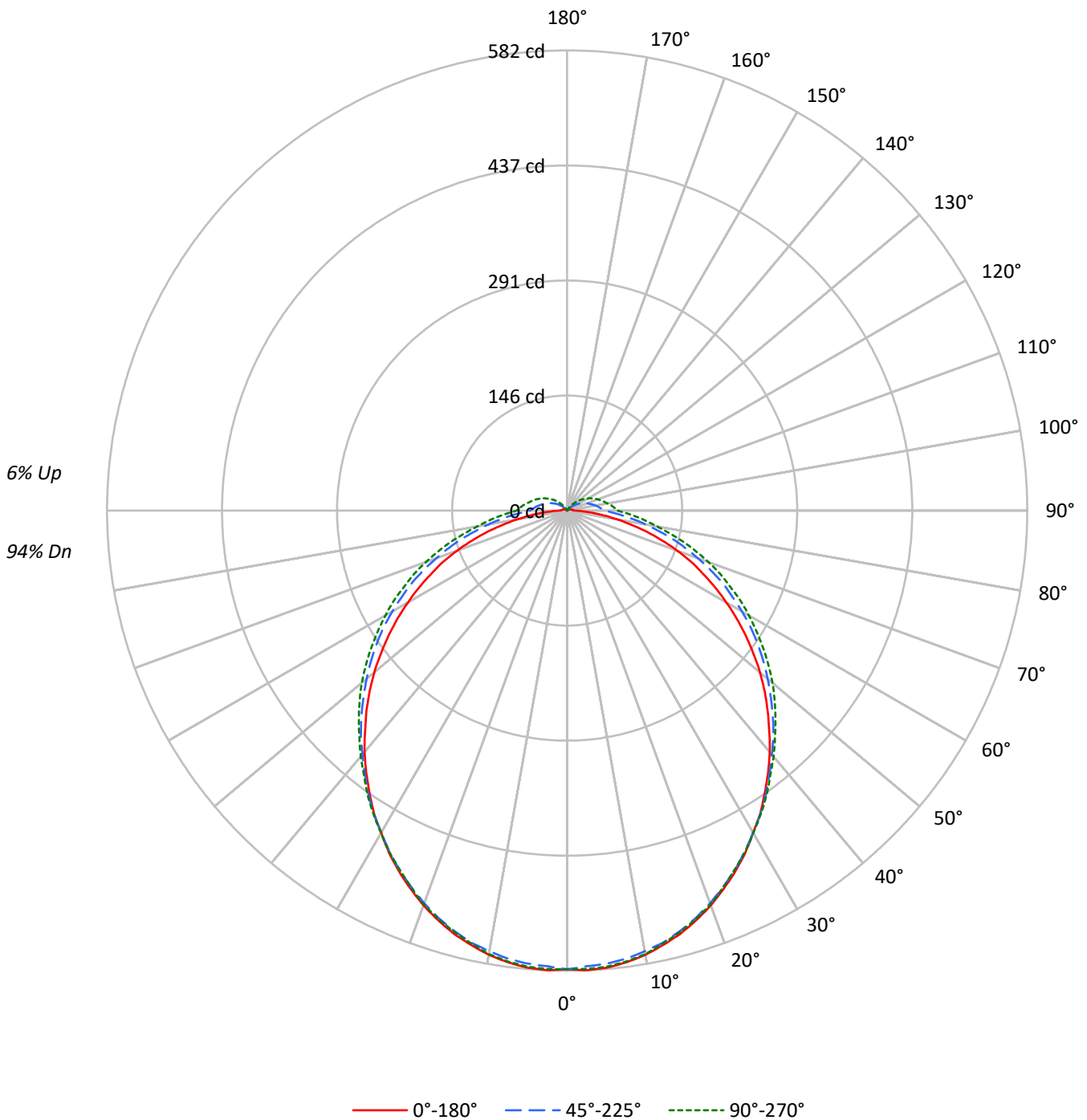
Lumens per Lamp: N/A
Luminaire Lumens: 1797.3 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (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	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°	4124	4124	4124
5°	4132	4044	4055
10°	4102	3969	3960
15°	4053	3879	3840
20°	3987	3769	3721
25°	3909	3652	3574
30°	3813	3523	3442
35°	3724	3405	3319
40°	3634	3280	3196
45°	3531	3172	3087
50°	3434	3056	2989
55°	3317	2946	2874
60°	3188	2820	2757
65°	3054	2688	2625
70°	2902	2509	2490
75°	2662	2335	2323
80°	2346	2123	2140
85°	2049	1970	2064

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3531 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	3.1
10°-20°	155.9	8.7
20°-30°	231.8	12.9
30°-40°	274.5	15.3
40°-50°	283.8	15.8
50°-60°	261.4	14.5
60°-70°	211.3	11.8
70°-80°	141.4	7.9
80°-90°	73.1	4.1
90°-100°	41.2	2.3
100°-110°	30.3	1.7
110°-120°	20.3	1.1
120°-130°	11.5	0.6
130°-140°	5.0	0.3
140°-150°	1.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	442.5	24.6
0°-40°	717.0	39.9
0°-60°	1262.1	70.2
0°-90°	1687.9	93.9
90°-120°	91.8	5.1
90°-150°	109.4	6.1
90°-180°	109.0	6.1
0°-180°	1797.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	580	579	575	580	579	55
15°	554	555	551	554	552	156
25°	503	505	502	504	501	232
35°	436	440	438	440	440	273
45°	359	365	368	372	373	277
55°	276	285	294	300	303	247
65°	190	203	217	225	228	189
75°	105	119	138	149	152	111
85°	31	50	70	82	87	33
90°	9	27	47	60	64	6
95°	7	22	42	54	58	6
105°	5	14	31	43	47	5
115°	3	7	22	32	36	3
125°	2	2	13	22	25	2
135°	1	1	5	12	15	1
145°	1	0	0	3	5	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	580.2	580.2	580.2	580.2	580.2
2.5°	581.9	580.8	576.8	580.8	580.2
5°	580.2	579.0	575.1	579.6	579.0
7.5°	576.2	575.6	571.7	575.6	575.1
10°	570.5	570.5	566.0	569.9	569.4
12.5°	562.6	563.1	559.7	562.6	560.8
15°	554.0	554.6	550.6	554.0	551.7
17.5°	543.2	544.3	540.4	543.2	541.5
20°	531.3	532.4	528.4	530.1	530.1
22.5°	517.6	519.9	515.3	517.6	515.9
25°	503.4	505.1	501.7	504.0	501.1
27.5°	488.0	490.3	486.3	488.0	486.9
30°	470.4	473.8	470.4	471.5	471.0
32.5°	454.5	457.3	455.0	456.2	455.6
35°	435.7	439.7	438.0	439.7	439.7
37.5°	417.5	420.9	420.3	422.6	422.1
40°	398.7	403.3	402.7	405.0	406.1
42.5°	378.3	384.5	386.2	389.1	389.1
45°	358.9	365.2	368.0	372.0	372.6
47.5°	339.0	344.7	349.2	354.9	356.1
50°	318.5	324.8	331.0	337.3	339.0
52.5°	296.9	304.9	312.8	319.7	320.8
55°	275.9	285.0	294.1	300.3	302.6
57.5°	254.3	265.1	275.3	282.1	283.8
60°	232.6	244.0	255.4	263.9	265.6
62.5°	211.6	223.0	235.5	245.2	247.4
65°	190.0	203.1	216.7	225.2	227.5
67.5°	170.1	182.6	196.2	206.5	209.3
70°	147.9	161.0	175.8	186.6	190.0
72.5°	126.3	139.9	156.4	168.4	170.6
75°	104.7	119.4	137.7	149.0	151.9
77.5°	83.6	100.7	117.7	130.3	132.5
80°	64.3	81.3	100.7	113.2	115.5
82.5°	46.6	64.8	84.8	96.7	101.2
85°	31.3	50.1	70.0	82.5	87.0
87.5°	19.9	38.1	57.4	70.5	74.5
90°	9.1	27.3	46.6	59.7	63.7
92.5°	8.0	24.5	44.4	56.9	60.9
95°	7.4	22.2	41.5	54.0	58.0
97.5°	6.8	20.5	39.2	51.2	55.2
100°	6.3	18.2	36.4	48.3	51.8
102.5°	5.7	16.5	34.1	45.5	48.9
105°	5.1	14.2	31.3	42.7	46.6
107.5°	4.6	12.5	29.0	40.4	43.8
110°	4.0	10.8	26.7	37.5	41.5

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	9.1	24.5	34.7	38.7
115°	3.4	7.4	22.2	32.4	35.8
117.5°	2.8	5.7	19.9	29.6	33.6
120°	2.8	4.6	17.6	27.3	30.7
122.5°	2.3	2.8	15.4	24.5	27.9
125°	2.3	1.7	13.1	22.2	25.0
127.5°	1.7	1.1	10.8	19.3	22.8
130°	1.7	1.1	9.1	17.1	19.9
132.5°	1.1	1.1	6.8	14.8	17.1
135°	1.1	0.6	4.6	11.9	14.8
137.5°	1.1	0.6	2.8	9.7	11.9
140°	0.6	0.6	1.1	7.4	9.7
142.5°	0.6	0.0	0.0	5.1	7.4
145°	0.6	0.0	0.0	2.8	5.1
147.5°	0.0	0.0	0.0	1.1	2.3
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



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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	14.84	16.37	15.30	16.81	17.28	15.88	17.41	16.34	17.85	18.32
	3H	16.49	17.89	16.96	18.33	18.84	18.06	19.45	18.53	19.90	20.41
	4H	17.06	18.38	17.55	18.85	19.37	19.02	20.34	19.51	20.81	21.33
	6H	17.44	18.67	17.94	19.15	19.68	19.92	21.15	20.42	21.63	22.16
	8H	17.54	18.72	18.06	19.22	19.76	20.35	21.53	20.87	22.03	22.57
	12H	17.61	18.73	18.13	19.23	19.80	20.81	21.94	21.34	22.44	23.01
4H	2H	15.60	16.92	16.09	17.39	17.91	16.42	17.73	16.91	18.20	18.72
	3H	17.48	18.60	17.99	19.11	19.65	18.81	19.93	19.31	20.44	20.98
	4H	18.18	19.20	18.71	19.73	20.30	19.92	20.94	20.45	21.46	22.04
	6H	18.69	19.59	19.24	20.14	20.73	20.99	21.88	21.53	22.43	23.02
	8H	18.84	19.69	19.39	20.23	20.84	21.51	22.35	22.06	22.90	23.50
	12H	18.94	19.71	19.52	20.28	20.89	22.06	22.83	22.64	23.40	24.01
8H	4H	18.67	19.51	19.22	20.06	20.66	20.18	21.02	20.73	21.57	22.17
	6H	19.33	20.04	19.91	20.63	21.24	21.40	22.11	21.99	22.70	23.31
	8H	19.57	20.21	20.17	20.81	21.43	22.04	22.68	22.64	23.28	23.90
	12H	19.75	20.32	20.35	20.91	21.60	22.75	23.32	23.35	23.91	24.60
12H	4H	18.77	19.53	19.34	20.11	20.71	20.20	20.96	20.77	21.54	22.15
	6H	19.49	20.13	20.09	20.74	21.36	21.45	22.09	22.05	22.70	23.32
	8H	19.81	20.38	20.41	20.97	21.66	22.16	22.73	22.76	23.32	24.01