

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: P243720

Luminaire Tested: S125DRP-H610D935-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-56)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H610D935-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

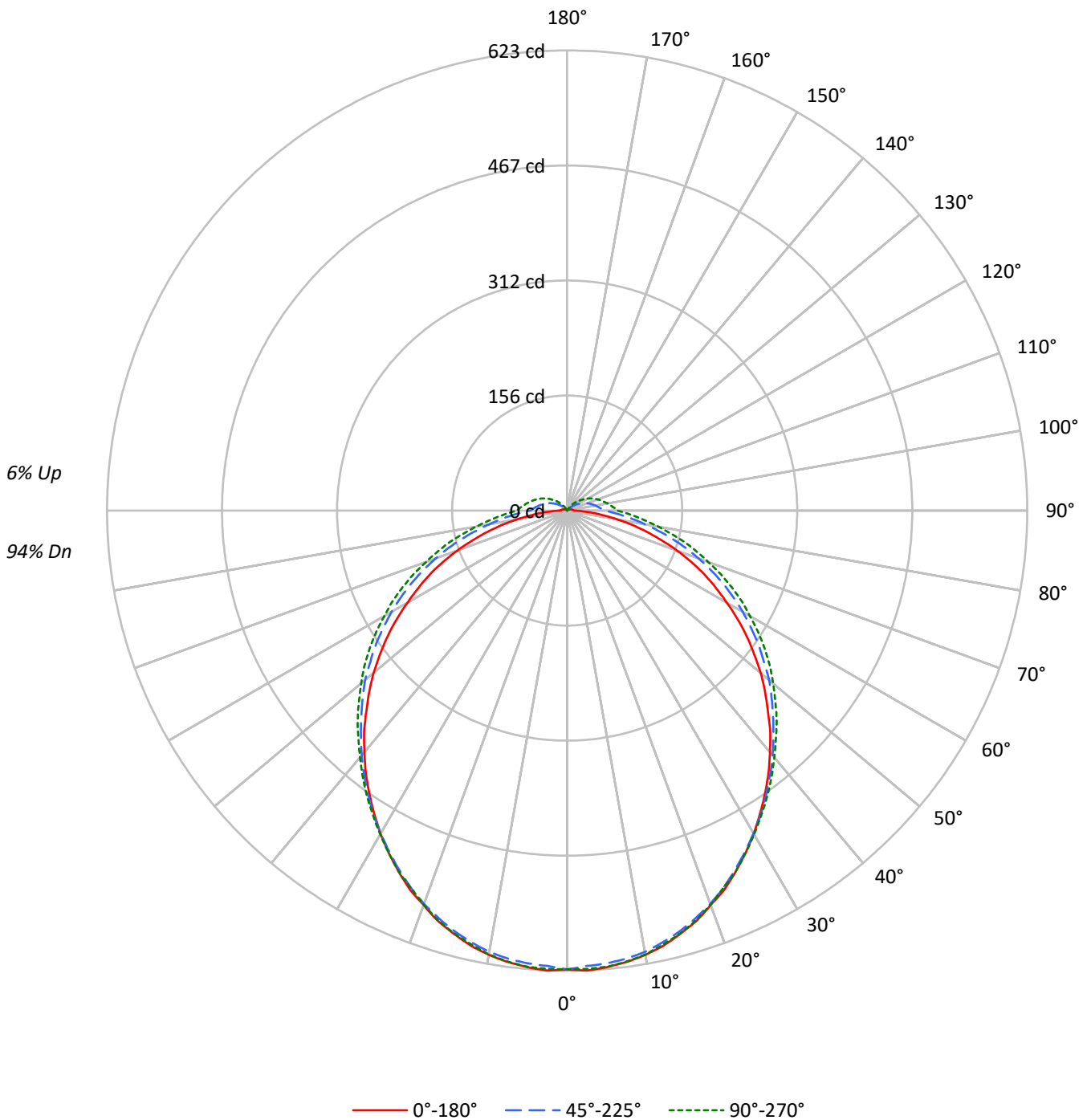
Lumens per Lamp: N/A
Luminaire Lumens: 1928.4 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 17.2
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

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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°	4414	4414	4414
5°	4419	4327	4342
10°	4391	4254	4244
15°	4338	4153	4123
20°	4265	4041	3985
25°	4190	3911	3849
30°	4094	3779	3700
35°	3994	3649	3566
40°	3892	3525	3433
45°	3784	3399	3324
50°	3688	3296	3208
55°	3568	3168	3102
60°	3422	3030	2968
65°	3304	2884	2836
70°	3108	2703	2663
75°	2845	2491	2511
80°	2535	2262	2318
85°	2252	2117	2207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3784 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	3.0
10°-20°	167.0	8.7
20°-30°	248.5	12.9
30°-40°	294.5	15.3
40°-50°	304.7	15.8
50°-60°	281.0	14.6
60°-70°	227.1	11.8
70°-80°	151.7	7.9
80°-90°	78.3	4.1
90°-100°	43.9	2.3
100°-110°	32.6	1.7
110°-120°	21.7	1.1
120°-130°	12.1	0.6
130°-140°	5.4	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°	474.3	24.6
0°-40°	768.8	39.9
0°-60°	1354.4	70.2
0°-90°	1811.5	93.9
90°-120°	98.2	5.1
90°-150°	116.9	6.1
90°-180°	117.0	6.1
0°-180°	1928.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	620	620	615	620	620	59
15°	593	595	590	593	592	167
25°	540	542	537	540	540	248
35°	467	471	470	472	472	292
45°	385	391	394	401	401	297
55°	297	306	316	324	327	265
65°	206	218	232	243	246	203
75°	112	129	147	160	164	119
85°	34	54	75	88	93	35
90°	10	29	50	64	68	7
95°	8	24	44	57	61	6
105°	6	16	34	46	50	6
115°	4	8	24	34	38	4
125°	2	2	14	22	26	2
135°	1	1	5	13	16	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°	621.1	621.1	621.1	621.1	621.1
2.5°	623.4	621.7	617.1	621.7	621.1
5°	620.5	619.9	615.3	619.9	619.9
7.5°	616.5	615.9	611.9	616.5	615.9
10°	610.7	610.7	606.7	610.2	610.2
12.5°	603.3	603.3	598.7	602.7	601.6
15°	593.0	594.7	589.5	593.0	592.4
17.5°	582.6	582.6	578.6	581.5	581.5
20°	568.3	570.6	566.6	569.4	567.7
22.5°	555.6	556.8	552.8	555.6	552.8
25°	539.6	541.9	537.3	540.1	539.6
27.5°	522.9	524.6	521.2	524.6	522.9
30°	505.1	506.9	504.6	506.9	506.3
32.5°	486.2	489.6	487.9	489.6	489.1
35°	467.2	470.7	469.5	471.8	472.4
37.5°	447.7	451.2	451.2	454.0	454.6
40°	427.1	431.7	432.8	436.8	436.2
42.5°	407.0	411.6	413.3	418.5	418.5
45°	384.6	390.9	394.3	400.7	401.2
47.5°	363.4	370.2	375.4	381.1	382.3
50°	342.1	348.4	357.0	362.8	363.9
52.5°	319.2	327.2	335.8	343.8	346.1
55°	296.8	305.9	316.3	323.7	326.6
57.5°	273.8	283.6	295.0	304.2	306.5
60°	249.7	261.2	274.4	283.6	285.9
62.5°	227.3	239.9	253.7	263.5	266.9
65°	205.5	217.6	232.5	242.8	245.7
67.5°	182.0	195.2	210.7	222.1	225.0
70°	158.4	172.8	189.4	200.3	203.2
72.5°	134.3	150.4	168.2	180.2	183.7
75°	111.9	128.6	146.9	159.6	164.2
77.5°	90.7	107.9	126.3	139.5	143.5
80°	69.5	87.2	107.3	121.1	125.1
82.5°	50.5	69.5	90.1	103.9	107.9
85°	34.4	54.0	75.2	88.4	93.0
87.5°	21.2	40.2	62.0	75.2	79.8
90°	9.8	28.7	49.9	63.7	68.3
92.5°	8.6	26.4	47.1	60.8	64.9
95°	8.0	24.1	44.2	57.4	61.4
97.5°	7.5	21.8	41.3	54.5	58.5
100°	6.9	19.5	39.0	51.7	55.7
102.5°	6.3	17.8	36.2	48.8	52.2
105°	5.7	15.5	33.9	45.9	49.9
107.5°	5.2	13.2	31.6	43.1	47.1
110°	4.6	11.5	28.7	40.2	44.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.0	9.8	26.4	37.3	41.3
115°	4.0	8.0	23.5	34.4	38.5
117.5°	3.4	6.3	20.7	31.6	35.6
120°	2.9	4.6	18.4	28.7	32.7
122.5°	2.9	3.4	16.1	25.8	29.8
125°	2.3	2.3	13.8	22.4	26.4
127.5°	2.3	1.7	11.5	20.1	23.0
130°	1.7	1.1	9.8	17.8	20.7
132.5°	1.7	1.1	7.5	15.5	18.4
135°	1.1	1.1	5.2	13.2	15.5
137.5°	1.1	0.6	3.4	10.3	13.2
140°	0.6	0.6	1.1	8.0	10.3
142.5°	0.6	0.6	0.6	5.7	8.0
145°	0.6	0.0	0.0	3.4	5.2
147.5°	0.6	0.0	0.0	1.1	2.9
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	15.07	16.61	15.53	17.05	17.51	16.16	17.69	16.62	18.13	18.60
	3H	16.72	18.12	17.19	18.57	19.07	18.33	19.72	18.80	20.17	20.67
	4H	17.29	18.61	17.78	19.08	19.60	19.29	20.61	19.78	21.07	21.59
	6H	17.68	18.90	18.18	19.39	19.92	20.19	21.42	20.70	21.90	22.43
	8H	17.78	18.96	18.30	19.46	20.00	20.62	21.79	21.14	22.30	22.84
	12H	17.85	18.97	18.37	19.47	20.04	21.07	22.20	21.60	22.70	23.27
4H	2H	15.84	17.16	16.33	17.62	18.14	16.69	18.01	17.18	18.47	18.99
	3H	17.72	18.84	18.22	19.35	19.89	19.07	20.19	19.57	20.70	21.24
	4H	18.42	19.44	18.95	19.97	20.54	20.18	21.20	20.71	21.72	22.30
	6H	18.94	19.83	19.48	20.38	20.97	21.25	22.15	21.79	22.70	23.29
	8H	19.09	19.93	19.64	20.48	21.08	21.77	22.61	22.32	23.16	23.76
	12H	19.19	19.96	19.76	20.53	21.14	22.32	23.08	22.89	23.66	24.26
8H	4H	18.91	19.75	19.46	20.30	20.90	20.44	21.28	20.99	21.83	22.43
	6H	19.57	20.28	20.16	20.87	21.48	21.66	22.37	22.24	22.96	23.57
	8H	19.81	20.45	20.41	21.06	21.68	22.30	22.94	22.89	23.54	24.16
	12H	20.00	20.57	20.60	21.16	21.85	23.00	23.57	23.60	24.16	24.85
12H	4H	19.00	19.77	19.58	20.34	20.95	20.46	21.22	21.03	21.80	22.40
	6H	19.73	20.37	20.33	20.98	21.60	21.71	22.35	22.31	22.95	23.57
	8H	20.05	20.62	20.65	21.21	21.90	22.41	22.98	23.01	23.57	24.26