

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: P243706

Luminaire Tested: S125DRP-H610D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243706
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-H610D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

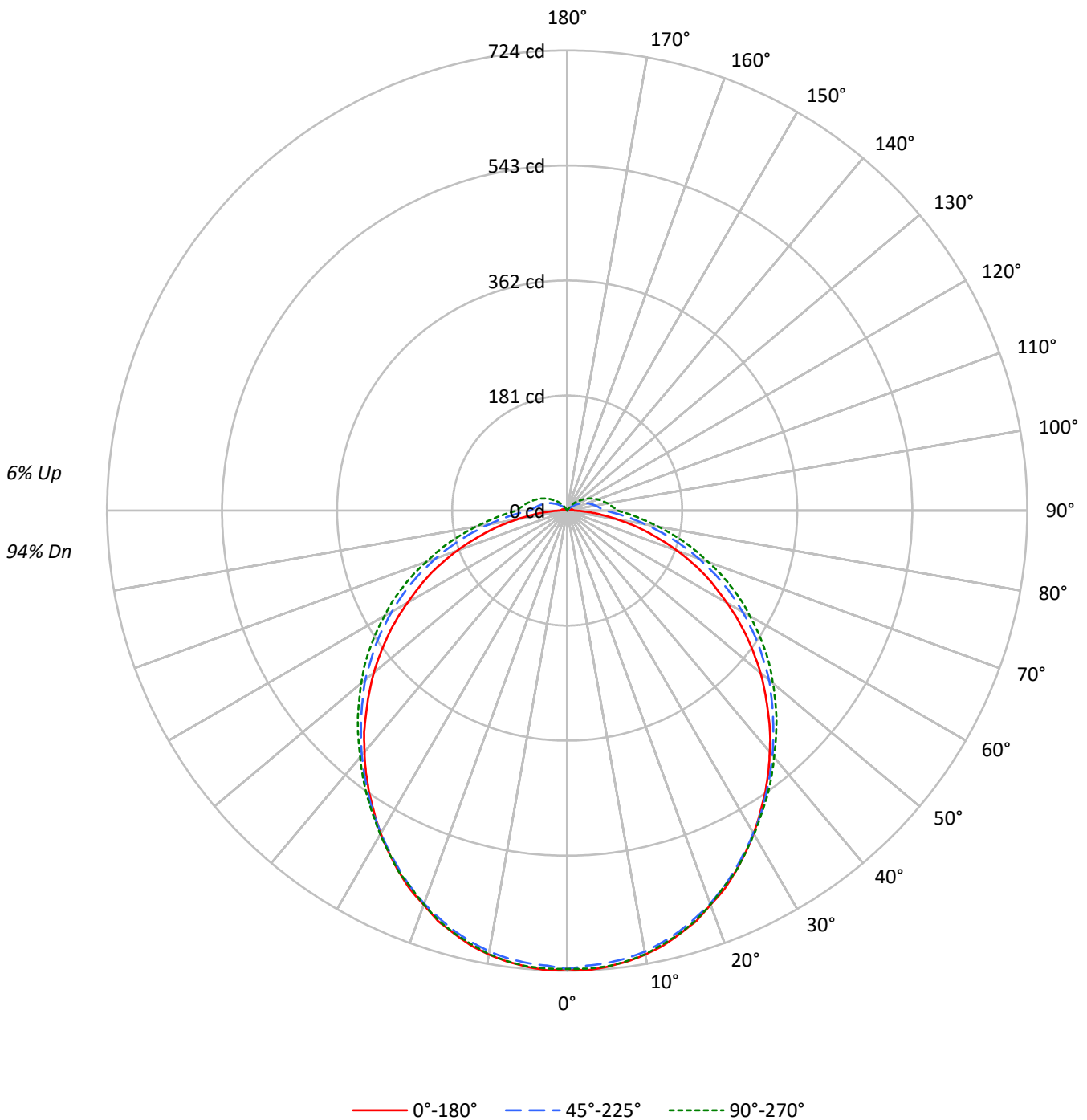
Lumens per Lamp: N/A
Luminaire Lumens: 2239.7 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (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°	5127	5127	5127
5°	5132	5026	5043
10°	5100	4941	4929
15°	5038	4824	4789
20°	4953	4693	4627
25°	4866	4542	4470
30°	4756	4389	4297
35°	4639	4239	4142
40°	4520	4094	3988
45°	4395	3948	3861
50°	4283	3828	3727
55°	4144	3679	3603
60°	3974	3519	3447
65°	3837	3349	3293
70°	3610	3140	3093
75°	3305	2895	2916
80°	2944	2629	2692
85°	2618	2457	2562

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4395 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	3.0
10°-20°	193.9	8.7
20°-30°	288.7	12.9
30°-40°	342.0	15.3
40°-50°	353.9	15.8
50°-60°	326.4	14.6
60°-70°	263.8	11.8
70°-80°	176.2	7.9
80°-90°	90.9	4.1
90°-100°	51.0	2.3
100°-110°	37.8	1.7
110°-120°	25.2	1.1
120°-130°	14.1	0.6
130°-140°	6.3	0.3
140°-150°	1.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	550.8	24.6
0°-40°	892.9	39.9
0°-60°	1573.1	70.2
0°-90°	2104.0	93.9
90°-120°	114.0	5.1
90°-150°	135.7	6.1
90°-180°	136.0	6.1
0°-180°	2239.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	721	720	715	720	720	68
15°	689	691	685	689	688	194
25°	627	629	624	627	627	289
35°	543	547	545	548	549	339
45°	447	454	458	465	466	345
55°	345	355	367	376	379	308
65°	239	253	270	282	285	235
75°	130	149	171	185	191	138
85°	40	63	87	103	108	41
90°	11	33	58	74	79	8
95°	9	28	51	67	71	7
105°	7	18	39	53	58	7
115°	5	9	27	40	45	4
125°	3	3	16	26	31	3
135°	1	1	6	15	18	1
145°	1	0	0	4	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	721.3	721.3	721.3	721.3	721.3
2.5°	724.0	722.0	716.7	722.0	721.3
5°	720.7	720.0	714.7	720.0	720.0
7.5°	716.0	715.3	710.7	716.0	715.3
10°	709.3	709.3	704.7	708.7	708.7
12.5°	700.7	700.7	695.3	700.0	698.7
15°	688.7	690.7	684.7	688.7	688.0
17.5°	676.7	676.7	672.0	675.3	675.3
20°	660.0	662.7	658.0	661.3	659.3
22.5°	645.3	646.7	642.0	645.3	642.0
25°	626.7	629.3	624.0	627.3	626.7
27.5°	607.3	609.3	605.3	609.3	607.3
30°	586.7	588.7	586.0	588.7	588.0
32.5°	564.7	568.7	566.7	568.7	568.0
35°	542.7	546.7	545.3	548.0	548.7
37.5°	520.0	524.0	524.0	527.3	528.0
40°	496.0	501.3	502.7	507.3	506.7
42.5°	472.7	478.0	480.0	486.0	486.0
45°	446.7	454.0	458.0	465.3	466.0
47.5°	422.0	430.0	436.0	442.7	444.0
50°	397.3	404.7	414.7	421.3	422.7
52.5°	370.7	380.0	390.0	399.3	402.0
55°	344.7	355.3	367.3	376.0	379.3
57.5°	318.0	329.3	342.7	353.3	356.0
60°	290.0	303.3	318.7	329.3	332.0
62.5°	264.0	278.7	294.7	306.0	310.0
65°	238.7	252.7	270.0	282.0	285.3
67.5°	211.3	226.7	244.7	258.0	261.3
70°	184.0	200.7	220.0	232.7	236.0
72.5°	156.0	174.7	195.3	209.3	213.3
75°	130.0	149.3	170.7	185.3	190.7
77.5°	105.3	125.3	146.7	162.0	166.7
80°	80.7	101.3	124.7	140.7	145.3
82.5°	58.7	80.7	104.7	120.7	125.3
85°	40.0	62.7	87.3	102.7	108.0
87.5°	24.7	46.7	72.0	87.3	92.7
90°	11.3	33.3	58.0	74.0	79.3
92.5°	10.0	30.7	54.7	70.7	75.3
95°	9.3	28.0	51.3	66.7	71.3
97.5°	8.7	25.3	48.0	63.3	68.0
100°	8.0	22.7	45.3	60.0	64.7
102.5°	7.3	20.7	42.0	56.7	60.7
105°	6.7	18.0	39.3	53.3	58.0
107.5°	6.0	15.3	36.7	50.0	54.7
110°	5.3	13.3	33.3	46.7	51.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.7	11.3	30.7	43.3	48.0
115°	4.7	9.3	27.3	40.0	44.7
117.5°	4.0	7.3	24.0	36.7	41.3
120°	3.3	5.3	21.3	33.3	38.0
122.5°	3.3	4.0	18.7	30.0	34.7
125°	2.7	2.7	16.0	26.0	30.7
127.5°	2.7	2.0	13.3	23.3	26.7
130°	2.0	1.3	11.3	20.7	24.0
132.5°	2.0	1.3	8.7	18.0	21.3
135°	1.3	1.3	6.0	15.3	18.0
137.5°	1.3	0.7	4.0	12.0	15.3
140°	0.7	0.7	1.3	9.3	12.0
142.5°	0.7	0.7	0.7	6.7	9.3
145°	0.7	0.0	0.0	4.0	6.0
147.5°	0.7	0.0	0.0	1.3	3.3
150°	0.0	0.0	0.0	0.0	0.7
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	15.59	17.13	16.05	17.56	18.03	16.68	18.21	17.14	18.65	19.12
	3H	17.24	18.64	17.71	19.09	19.59	18.85	20.24	19.32	20.69	21.19
	4H	17.81	19.13	18.30	19.60	20.12	19.81	21.13	20.30	21.59	22.11
	6H	18.20	19.42	18.70	19.90	20.44	20.71	21.94	21.22	22.42	22.95
	8H	18.30	19.48	18.82	19.98	20.52	21.14	22.31	21.66	22.82	23.36
	12H	18.37	19.49	18.89	19.99	20.56	21.59	22.72	22.12	23.22	23.79
4H	2H	16.36	17.68	16.85	18.14	18.66	17.21	18.53	17.70	18.99	19.51
	3H	18.24	19.36	18.74	19.87	20.41	19.59	20.71	20.09	21.22	21.76
	4H	18.94	19.96	19.47	20.48	21.06	20.70	21.72	21.23	22.24	22.82
	6H	19.46	20.35	20.00	20.90	21.49	21.77	22.67	22.31	23.22	23.81
	8H	19.61	20.45	20.16	21.00	21.60	22.29	23.13	22.84	23.68	24.28
	12H	19.71	20.48	20.28	21.05	21.66	22.84	23.60	23.41	24.18	24.78
8H	4H	19.42	20.27	19.97	20.82	21.42	20.96	21.80	21.51	22.35	22.95
	6H	20.09	20.80	20.68	21.39	22.00	22.18	22.89	22.76	23.48	24.09
	8H	20.33	20.97	20.93	21.58	22.20	22.82	23.46	23.41	24.06	24.68
	12H	20.52	21.09	21.12	21.68	22.37	23.52	24.09	24.12	24.68	25.37
12H	4H	19.52	20.29	20.10	20.86	21.47	20.98	21.74	21.55	22.32	22.92
	6H	20.25	20.89	20.85	21.50	22.12	22.23	22.87	22.83	23.47	24.09
	8H	20.57	21.14	21.17	21.73	22.42	22.93	23.50	23.53	24.09	24.78