

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: P243701

Luminaire Tested: S125DRP-H610D830-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243701
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-H610D830-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

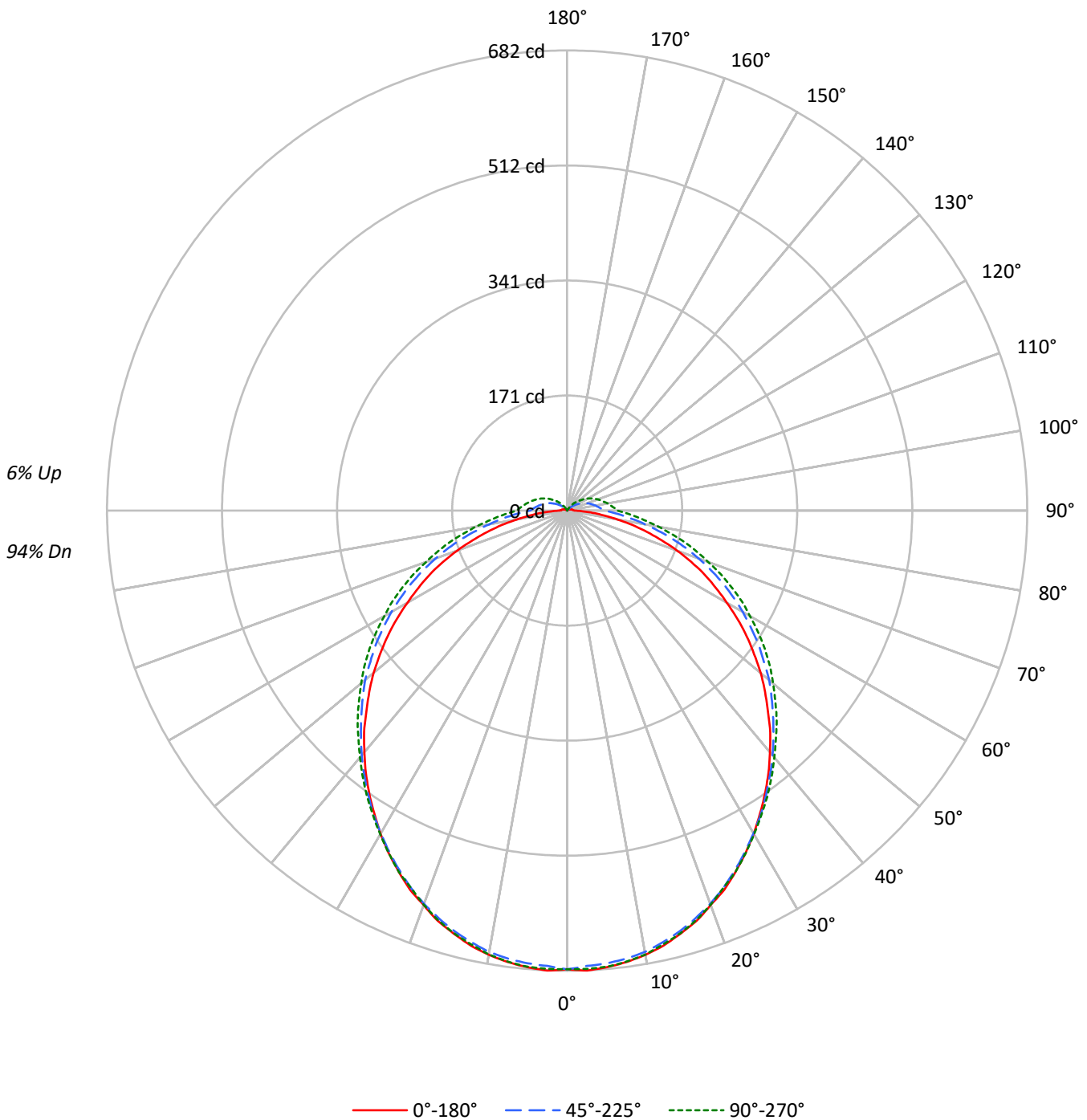
Lumens per Lamp: N/A
Luminaire Lumens: 2111.1 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 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°	4832	4832	4832
5°	4837	4737	4753
10°	4807	4657	4646
15°	4749	4546	4514
20°	4669	4424	4362
25°	4586	4281	4213
30°	4483	4136	4050
35°	4372	3995	3905
40°	4261	3859	3759
45°	4143	3721	3639
50°	4037	3608	3513
55°	3906	3468	3396
60°	3745	3317	3248
65°	3617	3157	3103
70°	3402	2960	2914
75°	3114	2728	2748
80°	2773	2477	2538
85°	2468	2317	2415

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4143 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	3.0
10°-20°	182.8	8.7
20°-30°	272.1	12.9
30°-40°	322.4	15.3
40°-50°	333.5	15.8
50°-60°	307.6	14.6
60°-70°	248.6	11.8
70°-80°	166.1	7.9
80°-90°	85.7	4.1
90°-100°	48.1	2.3
100°-110°	35.7	1.7
110°-120°	23.7	1.1
120°-130°	13.3	0.6
130°-140°	6.0	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°	519.2	24.6
0°-40°	841.6	39.9
0°-60°	1482.7	70.2
0°-90°	1983.1	93.9
90°-120°	107.5	5.1
90°-150°	128.0	6.1
90°-180°	128.0	6.1
0°-180°	2111.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	679	679	674	679	679	65
15°	649	651	645	649	648	183
25°	591	593	588	591	591	272
35°	512	515	514	516	517	320
45°	421	428	432	439	439	325
55°	325	335	346	354	358	290
65°	225	238	254	266	269	222
75°	122	141	161	175	180	130
85°	38	59	82	97	102	39
90°	11	31	55	70	75	7
95°	9	26	48	63	67	7
105°	6	17	37	50	55	7
115°	4	9	26	38	42	4
125°	2	2	15	24	29	2
135°	1	1	6	14	17	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°	679.9	679.9	679.9	679.9	679.9
2.5°	682.4	680.5	675.5	680.5	679.9
5°	679.3	678.6	673.6	678.6	678.6
7.5°	674.9	674.2	669.8	674.9	674.2
10°	668.6	668.6	664.2	668.0	668.0
12.5°	660.4	660.4	655.4	659.8	658.5
15°	649.1	651.0	645.3	649.1	648.5
17.5°	637.8	637.8	633.4	636.5	636.5
20°	622.1	624.6	620.2	623.3	621.5
22.5°	608.3	609.5	605.1	608.3	605.1
25°	590.7	593.2	588.2	591.3	590.7
27.5°	572.5	574.3	570.6	574.3	572.5
30°	553.0	554.9	552.3	554.9	554.2
32.5°	532.2	536.0	534.1	536.0	535.4
35°	511.5	515.3	514.0	516.5	517.2
37.5°	490.1	493.9	493.9	497.0	497.7
40°	467.5	472.5	473.8	478.2	477.6
42.5°	445.5	450.5	452.4	458.1	458.1
45°	421.0	427.9	431.7	438.6	439.2
47.5°	397.8	405.3	411.0	417.2	418.5
50°	374.5	381.4	390.8	397.1	398.4
52.5°	349.4	358.2	367.6	376.4	378.9
55°	324.9	334.9	346.2	354.4	357.5
57.5°	299.7	310.4	323.0	333.0	335.6
60°	273.3	285.9	300.4	310.4	312.9
62.5°	248.8	262.7	277.7	288.4	292.2
65°	225.0	238.2	254.5	265.8	268.9
67.5°	199.2	213.6	230.6	243.2	246.3
70°	173.4	189.1	207.4	219.3	222.4
72.5°	147.0	164.6	184.1	197.3	201.1
75°	122.5	140.8	160.9	174.7	179.7
77.5°	99.3	118.1	138.2	152.7	157.1
80°	76.0	95.5	117.5	132.6	137.0
82.5°	55.3	76.0	98.7	113.7	118.1
85°	37.7	59.1	82.3	96.8	101.8
87.5°	23.2	44.0	67.9	82.3	87.3
90°	10.7	31.4	54.7	69.7	74.8
92.5°	9.4	28.9	51.5	66.6	71.0
95°	8.8	26.4	48.4	62.8	67.2
97.5°	8.2	23.9	45.2	59.7	64.1
100°	7.5	21.4	42.7	56.6	61.0
102.5°	6.9	19.5	39.6	53.4	57.2
105°	6.3	17.0	37.1	50.3	54.7
107.5°	5.7	14.5	34.6	47.1	51.5
110°	5.0	12.6	31.4	44.0	48.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.4	10.7	28.9	40.8	45.2
115°	4.4	8.8	25.8	37.7	42.1
117.5°	3.8	6.9	22.6	34.6	39.0
120°	3.1	5.0	20.1	31.4	35.8
122.5°	3.1	3.8	17.6	28.3	32.7
125°	2.5	2.5	15.1	24.5	28.9
127.5°	2.5	1.9	12.6	22.0	25.1
130°	1.9	1.3	10.7	19.5	22.6
132.5°	1.9	1.3	8.2	17.0	20.1
135°	1.3	1.3	5.7	14.5	17.0
137.5°	1.3	0.6	3.8	11.3	14.5
140°	0.6	0.6	1.3	8.8	11.3
142.5°	0.6	0.6	0.6	6.3	8.8
145°	0.6	0.0	0.0	3.8	5.7
147.5°	0.6	0.0	0.0	1.3	3.1
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	15.39	16.92	15.84	17.36	17.82	16.48	18.01	16.93	18.45	18.91
	3H	17.04	18.43	17.51	18.88	19.38	18.64	20.03	19.11	20.48	20.99
	4H	17.61	18.92	18.10	19.39	19.91	19.60	20.92	20.09	21.39	21.91
	6H	17.99	19.22	18.50	19.70	20.23	20.51	21.73	21.01	22.21	22.75
	8H	18.10	19.27	18.61	19.78	20.32	20.94	22.11	21.45	22.61	23.15
	12H	18.16	19.29	18.68	19.78	20.36	21.39	22.51	21.91	23.01	23.58
4H	2H	16.15	17.47	16.64	17.94	18.46	17.00	18.32	17.49	18.79	19.31
	3H	18.03	19.15	18.54	19.66	20.20	19.39	20.50	19.89	21.01	21.56
	4H	18.74	19.76	19.26	20.28	20.85	20.50	21.52	21.02	22.04	22.61
	6H	19.25	20.15	19.79	20.70	21.28	21.57	22.46	22.11	23.01	23.60
	8H	19.40	20.25	19.95	20.79	21.40	22.08	22.92	22.63	23.47	24.07
	12H	19.51	20.27	20.08	20.85	21.45	22.63	23.39	23.20	23.97	24.58
8H	4H	19.22	20.06	19.77	20.61	21.21	20.75	21.60	21.30	22.14	22.75
	6H	19.89	20.60	20.47	21.19	21.80	21.98	22.69	22.56	23.28	23.89
	8H	20.13	20.77	20.72	21.37	21.99	22.61	23.25	23.21	23.85	24.47
	12H	20.31	20.88	20.91	21.47	22.16	23.32	23.89	23.91	24.48	25.17
12H	4H	19.32	20.08	19.89	20.66	21.26	20.77	21.53	21.34	22.11	22.72
	6H	20.05	20.69	20.64	21.29	21.91	22.02	22.66	22.62	23.27	23.89
	8H	20.37	20.93	20.96	21.53	22.21	22.73	23.30	23.32	23.89	24.57