

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: P242846

Luminaire Tested: S125DRP-S610D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242846
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-S610D835-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

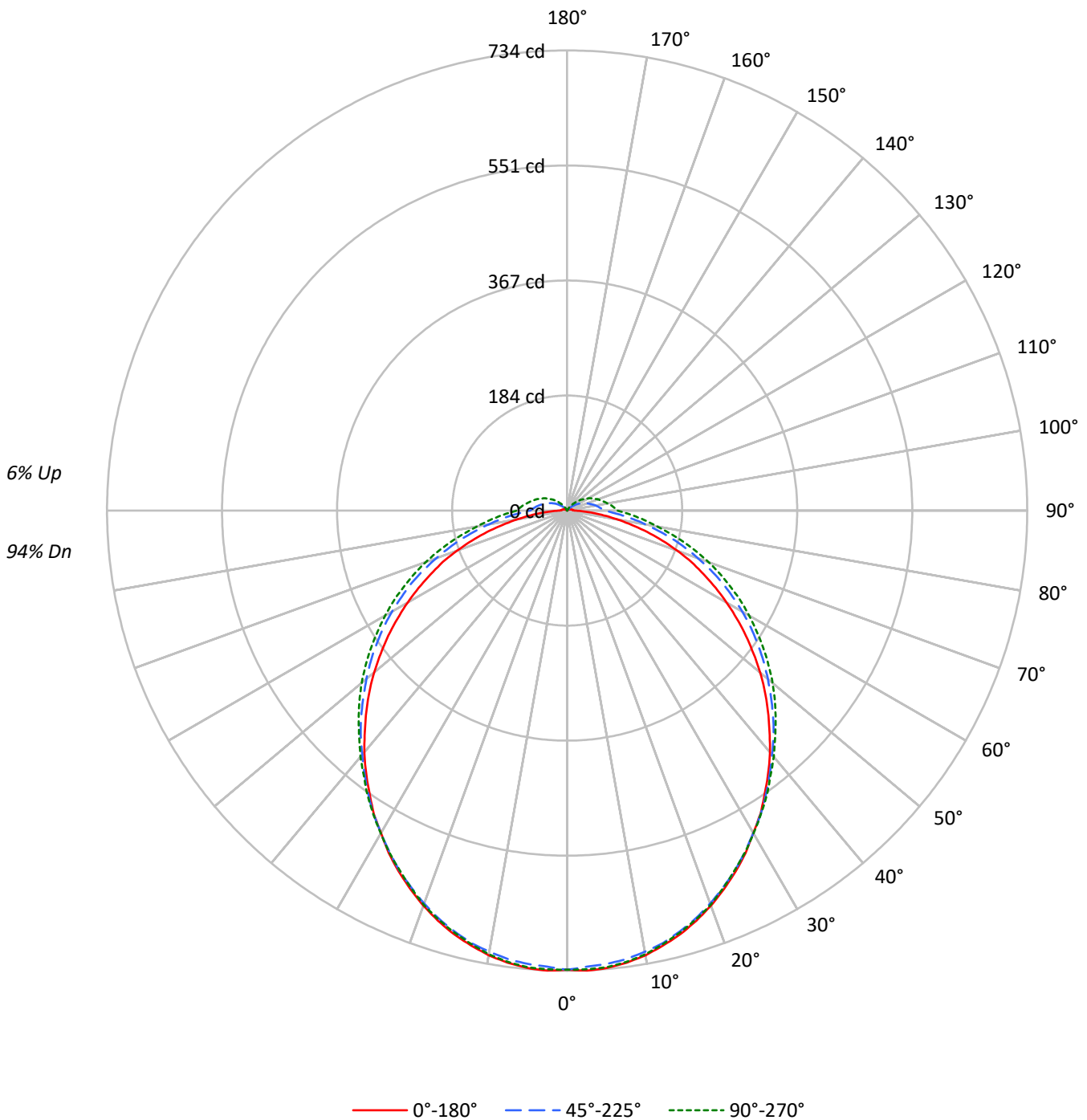
Lumens per Lamp: N/A
Luminaire Lumens: 2268.8 lumens
Efficiency: N/A
Efficacy: 120.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 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	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°	5205	5205	5205
5°	5215	5105	5120
10°	5178	5009	4999
15°	5117	4896	4848
20°	5033	4757	4697
25°	4934	4610	4512
30°	4813	4447	4344
35°	4701	4298	4190
40°	4587	4140	4035
45°	4458	4005	3896
50°	4335	3858	3773
55°	4186	3718	3629
60°	4025	3560	3481
65°	3855	3393	3314
70°	3663	3167	3142
75°	3358	2947	2932
80°	2959	2680	2701
85°	2586	2486	2608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4458 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.3	3.1
10°-20°	196.7	8.7
20°-30°	292.6	12.9
30°-40°	346.5	15.3
40°-50°	358.2	15.8
50°-60°	330.0	14.5
60°-70°	266.7	11.8
70°-80°	178.5	7.9
80°-90°	92.3	4.1
90°-100°	52.0	2.3
100°-110°	38.3	1.7
110°-120°	25.6	1.1
120°-130°	14.5	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°	558.6	24.6
0°-40°	905.1	39.9
0°-60°	1593.2	70.2
0°-90°	2130.7	93.9
90°-120°	115.9	5.1
90°-150°	138.0	6.1
90°-180°	138.0	6.1
0°-180°	2268.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	732	732	732	732	732	
5°	732	731	726	732	731	70
15°	699	700	695	699	696	197
25°	636	638	633	636	633	293
35°	550	555	553	555	555	344
45°	453	461	465	470	470	350
55°	348	360	371	379	382	311
65°	240	256	274	284	287	238
75°	132	151	174	188	192	140
85°	40	63	88	104	110	41
90°	12	34	59	75	80	8
95°	9	28	52	68	73	7
105°	6	18	40	54	59	7
115°	4	9	28	41	45	4
125°	3	2	16	28	32	2
135°	1	1	6	15	19	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°	732.4	732.4	732.4	732.4	732.4
2.5°	734.5	733.1	728.1	733.1	732.4
5°	732.4	731.0	725.9	731.7	731.0
7.5°	727.4	726.6	721.6	726.6	725.9
10°	720.2	720.2	714.4	719.5	718.7
12.5°	710.1	710.8	706.5	710.1	708.0
15°	699.4	700.1	695.0	699.4	696.5
17.5°	685.7	687.2	682.1	685.7	683.6
20°	670.6	672.1	667.0	669.2	669.2
22.5°	653.4	656.3	650.5	653.4	651.2
25°	635.5	637.6	633.3	636.2	632.6
27.5°	616.1	618.9	613.9	616.1	614.6
30°	593.8	598.1	593.8	595.2	594.5
32.5°	573.7	577.3	574.4	575.9	575.1
35°	550.0	555.0	552.9	555.0	555.0
37.5°	527.0	531.3	530.6	533.5	532.8
40°	503.3	509.1	508.4	511.2	512.7
42.5°	477.5	485.4	487.5	491.1	491.1
45°	453.1	461.0	464.6	469.6	470.3
47.5°	427.9	435.1	440.9	448.0	449.5
50°	402.1	410.0	417.9	425.8	427.9
52.5°	374.8	384.9	394.9	403.5	405.0
55°	348.2	359.7	371.2	379.1	382.0
57.5°	321.0	334.6	347.5	356.1	358.3
60°	293.7	308.0	322.4	333.2	335.3
62.5°	267.1	281.5	297.3	309.5	312.3
65°	239.8	256.3	273.6	284.3	287.2
67.5°	214.7	230.5	247.7	260.6	264.2
70°	186.7	203.2	221.9	235.5	239.8
72.5°	159.4	176.6	197.5	212.5	215.4
75°	132.1	150.8	173.8	188.1	191.7
77.5°	105.5	127.1	148.6	164.4	167.3
80°	81.1	102.7	127.1	142.9	145.8
82.5°	58.9	81.9	107.0	122.1	127.8
85°	39.5	63.2	88.3	104.1	109.9
87.5°	25.1	48.1	72.5	89.0	94.1
90°	11.5	34.5	58.9	75.4	80.4
92.5°	10.1	30.9	56.0	71.8	76.8
95°	9.3	28.0	52.4	68.2	73.2
97.5°	8.6	25.8	49.5	64.6	69.6
100°	7.9	23.0	46.0	61.0	65.3
102.5°	7.2	20.8	43.1	57.4	61.8
105°	6.5	18.0	39.5	53.9	58.9
107.5°	5.7	15.8	36.6	51.0	55.3
110°	5.0	13.6	33.7	47.4	52.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.0	11.5	30.9	43.8	48.8
115°	4.3	9.3	28.0	40.9	45.2
117.5°	3.6	7.2	25.1	37.3	42.4
120°	3.6	5.7	22.3	34.5	38.8
122.5°	2.9	3.6	19.4	30.9	35.2
125°	2.9	2.2	16.5	28.0	31.6
127.5°	2.2	1.4	13.6	24.4	28.7
130°	2.2	1.4	11.5	21.5	25.1
132.5°	1.4	1.4	8.6	18.7	21.5
135°	1.4	0.7	5.7	15.1	18.7
137.5°	1.4	0.7	3.6	12.2	15.1
140°	0.7	0.7	1.4	9.3	12.2
142.5°	0.7	0.0	0.0	6.5	9.3
145°	0.7	0.0	0.0	3.6	6.5
147.5°	0.0	0.0	0.0	1.4	2.9
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	15.65	17.18	16.11	17.62	18.09	16.69	18.22	17.15	18.66	19.13
	3H	17.30	18.69	17.77	19.14	19.65	18.87	20.26	19.34	20.71	21.22
	4H	17.87	19.19	18.36	19.66	20.18	19.83	21.15	20.32	21.62	22.14
	6H	18.25	19.47	18.75	19.96	20.49	20.73	21.96	21.23	22.44	22.97
	8H	18.35	19.53	18.87	20.03	20.57	21.16	22.34	21.68	22.84	23.38
	12H	18.41	19.54	18.94	20.04	20.61	21.62	22.75	22.15	23.24	23.82
4H	2H	16.41	17.73	16.90	18.20	18.72	17.23	18.54	17.72	19.01	19.53
	3H	18.29	19.41	18.80	19.92	20.46	19.62	20.74	20.12	21.25	21.79
	4H	18.99	20.01	19.52	20.54	21.11	20.73	21.75	21.26	22.27	22.85
	6H	19.50	20.40	20.05	20.95	21.54	21.80	22.69	22.34	23.24	23.83
	8H	19.65	20.49	20.20	21.04	21.65	22.32	23.16	22.87	23.71	24.31
	12H	19.75	20.52	20.32	21.09	21.70	22.87	23.64	23.45	24.21	24.82
8H	4H	19.48	20.32	20.03	20.87	21.47	20.99	21.83	21.54	22.38	22.98
	6H	20.14	20.85	20.72	21.44	22.05	22.21	22.92	22.79	23.51	24.12
	8H	20.38	21.02	20.98	21.62	22.24	22.85	23.49	23.45	24.09	24.71
	12H	20.56	21.13	21.16	21.72	22.41	23.56	24.13	24.16	24.72	25.41
12H	4H	19.58	20.34	20.15	20.92	21.52	21.01	21.77	21.58	22.35	22.96
	6H	20.30	20.94	20.90	21.55	22.17	22.26	22.90	22.86	23.50	24.13
	8H	20.62	21.19	21.22	21.78	22.47	22.97	23.54	23.56	24.13	24.82