

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: P243696

Luminaire Tested: S125DRP-H610D927-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243696
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-H610D927-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

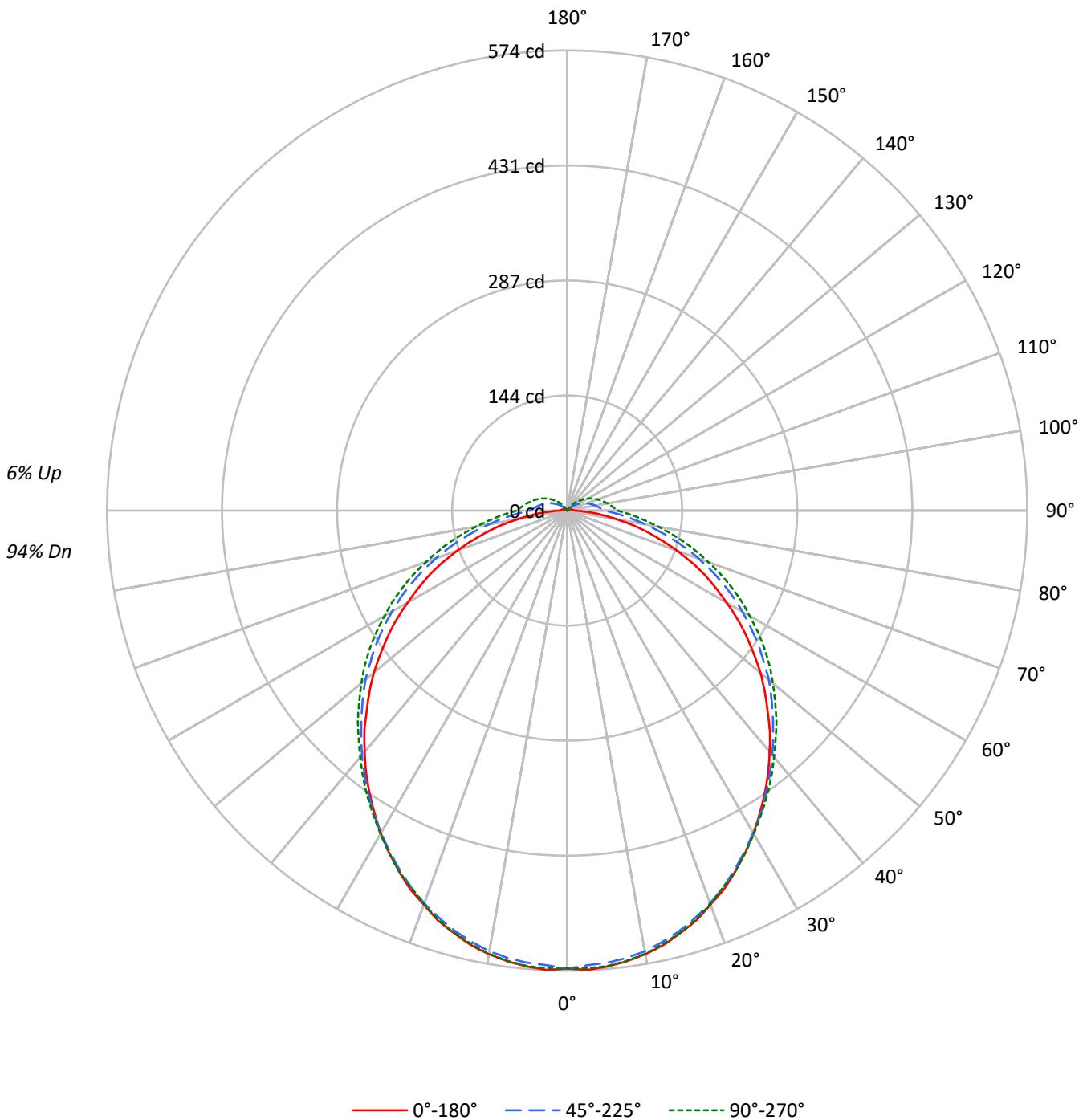
Lumens per Lamp: N/A
Luminaire Lumens: 1774.3 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

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	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°	4061	4061	4061
5°	4065	3982	3995
10°	4040	3914	3905
15°	3992	3821	3793
20°	3924	3718	3666
25°	3854	3598	3541
30°	3768	3476	3404
35°	3675	3358	3282
40°	3581	3243	3159
45°	3481	3128	3059
50°	3394	3032	2952
55°	3282	2915	2854
60°	3148	2787	2730
65°	3040	2653	2608
70°	2861	2488	2450
75°	2618	2293	2309
80°	2331	2083	2132
85°	2075	1948	2031

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	3.0
10°-20°	153.6	8.7
20°-30°	228.7	12.9
30°-40°	270.9	15.3
40°-50°	280.3	15.8
50°-60°	258.5	14.6
60°-70°	208.9	11.8
70°-80°	139.6	7.9
80°-90°	72.0	4.1
90°-100°	40.4	2.3
100°-110°	30.0	1.7
110°-120°	19.9	1.1
120°-130°	11.2	0.6
130°-140°	5.0	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°	436.4	24.6
0°-40°	707.3	39.9
0°-60°	1246.2	70.2
0°-90°	1666.7	93.9
90°-120°	90.3	5.1
90°-150°	107.6	6.1
90°-180°	108.0	6.1
0°-180°	1774.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	571	571	571	571	571	
5°	571	570	566	570	570	54
15°	546	547	542	546	545	154
25°	496	499	494	497	496	229
35°	430	433	432	434	435	269
45°	354	360	363	369	369	273
55°	273	282	291	298	300	244
65°	189	200	214	223	226	186
75°	103	118	135	147	151	109
85°	32	50	69	81	86	33
90°	9	26	46	59	63	6
95°	7	22	41	53	56	6
105°	5	14	31	42	46	6
115°	4	7	22	32	35	3
125°	2	2	13	21	24	2
135°	1	1	5	12	14	1
145°	0	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°	571.4	571.4	571.4	571.4	571.4
2.5°	573.6	572.0	567.7	572.0	571.4
5°	570.9	570.4	566.2	570.4	570.4
7.5°	567.2	566.7	563.0	567.2	566.7
10°	561.9	561.9	558.2	561.4	561.4
12.5°	555.1	555.1	550.8	554.5	553.5
15°	545.6	547.1	542.4	545.6	545.0
17.5°	536.1	536.1	532.4	535.0	535.0
20°	522.9	525.0	521.3	523.9	522.3
22.5°	511.2	512.3	508.6	511.2	508.6
25°	496.4	498.6	494.3	497.0	496.4
27.5°	481.1	482.7	479.5	482.7	481.1
30°	464.8	466.3	464.2	466.3	465.8
32.5°	447.3	450.5	448.9	450.5	450.0
35°	429.9	433.1	432.0	434.1	434.7
37.5°	411.9	415.1	415.1	417.8	418.3
40°	392.9	397.2	398.2	401.9	401.4
42.5°	374.4	378.7	380.3	385.0	385.0
45°	353.8	359.7	362.8	368.6	369.2
47.5°	334.3	340.6	345.4	350.7	351.7
50°	314.8	320.6	328.5	333.8	334.8
52.5°	293.6	301.0	309.0	316.4	318.5
55°	273.0	281.5	291.0	297.9	300.5
57.5°	251.9	260.9	271.5	279.9	282.0
60°	229.7	240.3	252.4	260.9	263.0
62.5°	209.1	220.8	233.4	242.4	245.6
65°	189.1	200.2	213.9	223.4	226.0
67.5°	167.4	179.6	193.8	204.4	207.0
70°	145.8	159.0	174.3	184.3	187.0
72.5°	123.6	138.4	154.7	165.8	169.0
75°	103.0	118.3	135.2	146.8	151.0
77.5°	83.4	99.3	116.2	128.3	132.0
80°	63.9	80.3	98.8	111.4	115.1
82.5°	46.5	63.9	82.9	95.6	99.3
85°	31.7	49.6	69.2	81.3	85.6
87.5°	19.5	37.0	57.0	69.2	73.4
90°	9.0	26.4	45.9	58.6	62.8
92.5°	7.9	24.3	43.3	56.0	59.7
95°	7.4	22.2	40.7	52.8	56.5
97.5°	6.9	20.1	38.0	50.2	53.9
100°	6.3	18.0	35.9	47.5	51.2
102.5°	5.8	16.4	33.3	44.9	48.1
105°	5.3	14.3	31.2	42.3	45.9
107.5°	4.8	12.1	29.0	39.6	43.3
110°	4.2	10.6	26.4	37.0	40.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.7	9.0	24.3	34.3	38.0
115°	3.7	7.4	21.7	31.7	35.4
117.5°	3.2	5.8	19.0	29.0	32.7
120°	2.6	4.2	16.9	26.4	30.1
122.5°	2.6	3.2	14.8	23.8	27.5
125°	2.1	2.1	12.7	20.6	24.3
127.5°	2.1	1.6	10.6	18.5	21.1
130°	1.6	1.1	9.0	16.4	19.0
132.5°	1.6	1.1	6.9	14.3	16.9
135°	1.1	1.1	4.8	12.1	14.3
137.5°	1.1	0.5	3.2	9.5	12.1
140°	0.5	0.5	1.1	7.4	9.5
142.5°	0.5	0.5	0.5	5.3	7.4
145°	0.5	0.0	0.0	3.2	4.8
147.5°	0.5	0.0	0.0	1.1	2.6
150°	0.0	0.0	0.0	0.0	0.5
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	14.78	16.32	15.24	16.76	17.22	15.87	17.41	16.33	17.84	18.31
	3H	16.43	17.83	16.90	18.28	18.78	18.04	19.43	18.51	19.88	20.38
	4H	17.00	18.32	17.49	18.79	19.31	19.00	20.32	19.49	20.78	21.30
	6H	17.39	18.61	17.89	19.10	19.63	19.90	21.13	20.41	21.61	22.14
	8H	17.49	18.67	18.01	19.17	19.71	20.33	21.50	20.85	22.01	22.55
	12H	17.56	18.68	18.08	19.18	19.75	20.78	21.91	21.31	22.41	22.98
4H	2H	15.55	16.87	16.04	17.33	17.85	16.40	17.72	16.89	18.19	18.70
	3H	17.43	18.55	17.93	19.06	19.60	18.78	19.90	19.29	20.41	20.95
	4H	18.13	19.15	18.66	19.68	20.25	19.89	20.91	20.42	21.43	22.01
	6H	18.65	19.54	19.19	20.09	20.68	20.96	21.86	21.50	22.41	23.00
	8H	18.80	19.64	19.35	20.19	20.79	21.48	22.32	22.03	22.87	23.47
	12H	18.90	19.67	19.47	20.24	20.85	22.03	22.79	22.60	23.37	23.97
8H	4H	18.62	19.46	19.17	20.01	20.61	20.15	20.99	20.70	21.54	22.14
	6H	19.28	19.99	19.87	20.58	21.19	21.37	22.08	21.95	22.67	23.28
	8H	19.52	20.16	20.12	20.77	21.39	22.01	22.65	22.60	23.25	23.87
	12H	19.71	20.28	20.31	20.87	21.56	22.71	23.28	23.31	23.87	24.56
12H	4H	18.71	19.48	19.29	20.05	20.66	20.17	20.93	20.74	21.51	22.11
	6H	19.44	20.08	20.04	20.69	21.31	21.42	22.06	22.02	22.66	23.28
	8H	19.76	20.33	20.36	20.92	21.61	22.12	22.69	22.72	23.28	23.97