

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: P243717

Luminaire Tested: S125DRP-H1090D930-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243717
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-H1090D930-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

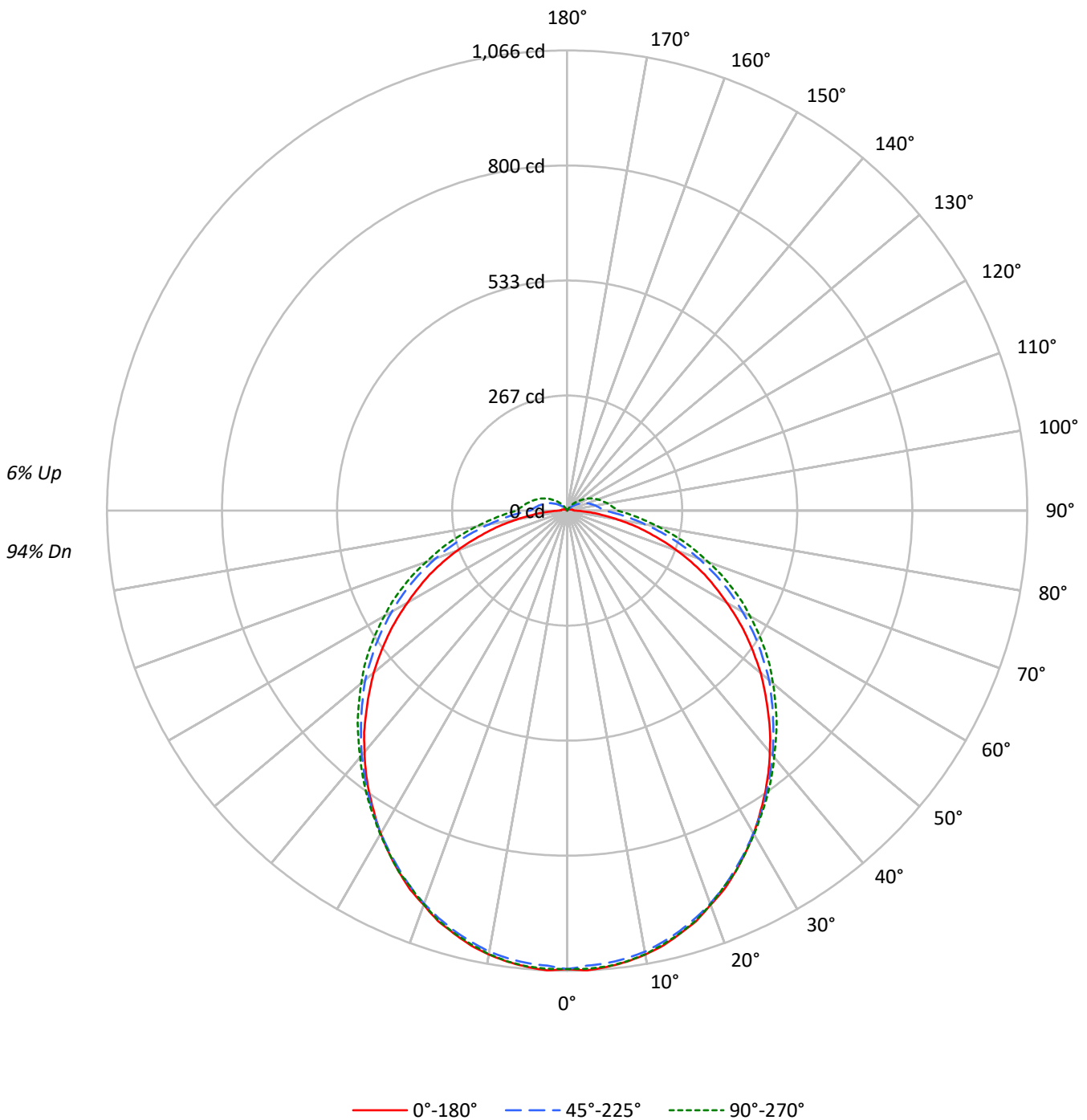
Lumens per Lamp: N/A
Luminaire Lumens: 3298.1 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 31.5
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

TEST NUMBER: P243717

CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P243717

CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

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°	7549	7549	7549
5°	7557	7401	7425
10°	7510	7276	7258
15°	7419	7103	7052
20°	7294	6911	6815
25°	7165	6688	6582
30°	7003	6462	6327
35°	6831	6242	6099
40°	6657	6028	5872
45°	6472	5814	5685
50°	6308	5637	5488
55°	6101	5418	5306
60°	5852	5181	5075
65°	5649	4931	4849
70°	5315	4624	4554
75°	4865	4261	4294
80°	4334	3871	3965
85°	3855	3620	3772

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6472 cd/sqm



TEST NUMBER: P243717

CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	3.0
10°-20°	285.6	8.7
20°-30°	425.1	12.9
30°-40°	503.6	15.3
40°-50°	521.1	15.8
50°-60°	480.6	14.6
60°-70°	388.4	11.8
70°-80°	259.5	7.9
80°-90°	133.9	4.1
90°-100°	75.1	2.3
100°-110°	55.7	1.7
110°-120°	37.1	1.1
120°-130°	20.7	0.6
130°-140°	9.3	0.3
140°-150°	2.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	811.2	24.6
0°-40°	1314.8	39.9
0°-60°	2316.4	70.2
0°-90°	3098.2	93.9
90°-120°	167.9	5.1
90°-150°	199.9	6.1
90°-180°	200.0	6.1
0°-180°	3298.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1062	1062	1062	1062	1062	
5°	1061	1060	1052	1060	1060	101
15°	1014	1017	1008	1014	1013	286
25°	923	927	919	924	923	425
35°	799	805	803	807	808	500
45°	658	668	674	685	686	508
55°	508	523	541	554	559	453
65°	351	372	398	415	420	347
75°	191	220	251	273	281	203
85°	59	92	129	151	159	61
90°	17	49	85	109	117	12
95°	14	41	76	98	105	11
105°	10	26	58	78	85	10
115°	7	14	40	59	66	6
125°	4	4	24	38	45	4
135°	2	2	9	23	26	2
145°	1	0	0	6	9	1
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

TEST NUMBER: P243717

CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1062.2	1062.2	1062.2	1062.2	1062.2
2.5°	1066.1	1063.2	1055.3	1063.2	1062.2
5°	1061.2	1060.2	1052.4	1060.2	1060.2
7.5°	1054.3	1053.4	1046.5	1054.3	1053.4
10°	1044.5	1044.5	1037.7	1043.5	1043.5
12.5°	1031.8	1031.8	1023.9	1030.8	1028.8
15°	1014.1	1017.0	1008.2	1014.1	1013.1
17.5°	996.4	996.4	989.6	994.5	994.5
20°	971.9	975.8	968.9	973.8	970.9
22.5°	950.3	952.3	945.4	950.3	945.4
25°	922.8	926.7	918.9	923.8	922.8
27.5°	894.3	897.3	891.4	897.3	894.3
30°	863.9	866.8	862.9	866.8	865.9
32.5°	831.5	837.4	834.4	837.4	836.4
35°	799.1	805.0	803.0	807.0	807.9
37.5°	765.7	771.6	771.6	776.5	777.5
40°	730.4	738.2	740.2	747.1	746.1
42.5°	696.0	703.9	706.8	715.7	715.7
45°	657.7	668.5	674.4	685.2	686.2
47.5°	621.4	633.2	642.0	651.9	653.8
50°	585.1	595.9	610.6	620.4	622.4
52.5°	545.8	559.6	574.3	588.0	592.0
55°	507.5	523.2	540.9	553.7	558.6
57.5°	468.3	485.0	504.6	520.3	524.2
60°	427.0	446.7	469.3	485.0	488.9
62.5°	388.8	410.4	433.9	450.6	456.5
65°	351.4	372.1	397.6	415.3	420.2
67.5°	311.2	333.8	360.3	379.9	384.8
70°	270.9	295.5	324.0	342.6	347.5
72.5°	229.7	257.2	287.6	308.3	314.1
75°	191.4	219.9	251.3	272.9	280.8
77.5°	155.1	184.6	216.0	238.6	245.4
80°	118.8	149.2	183.6	207.1	214.0
82.5°	86.4	118.8	154.1	177.7	184.6
85°	58.9	92.3	128.6	151.2	159.0
87.5°	36.3	68.7	106.0	128.6	136.5
90°	16.7	49.1	85.4	109.0	116.8
92.5°	14.7	45.2	80.5	104.1	110.9
95°	13.7	41.2	75.6	98.2	105.0
97.5°	12.8	37.3	70.7	93.3	100.1
100°	11.8	33.4	66.8	88.4	95.2
102.5°	10.8	30.4	61.8	83.4	89.3
105°	9.8	26.5	57.9	78.5	85.4
107.5°	8.8	22.6	54.0	73.6	80.5
110°	7.9	19.6	49.1	68.7	75.6



TEST NUMBER: P243717

CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.9	16.7	45.2	63.8	70.7
115°	6.9	13.7	40.2	58.9	65.8
117.5°	5.9	10.8	35.3	54.0	60.9
120°	4.9	7.9	31.4	49.1	56.0
122.5°	4.9	5.9	27.5	44.2	51.0
125°	3.9	3.9	23.6	38.3	45.2
127.5°	3.9	2.9	19.6	34.4	39.3
130°	2.9	2.0	16.7	30.4	35.3
132.5°	2.9	2.0	12.8	26.5	31.4
135°	2.0	2.0	8.8	22.6	26.5
137.5°	2.0	1.0	5.9	17.7	22.6
140°	1.0	1.0	2.0	13.7	17.7
142.5°	1.0	1.0	1.0	9.8	13.7
145°	1.0	0.0	0.0	5.9	8.8
147.5°	1.0	0.0	0.0	2.0	4.9
150°	0.0	0.0	0.0	0.0	1.0
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



TEST NUMBER: P243717
 CATALOG NUMBER: S125DRP-H1090D930-X4F0-XX-UDD-D-W

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	16.94	18.47	17.40	18.91	19.37	18.03	19.56	18.48	20.00	20.46
	3H	18.59	19.98	19.06	20.43	20.94	20.19	21.58	20.66	22.03	22.54
	4H	19.16	20.48	19.65	20.94	21.46	21.15	22.47	21.64	22.94	23.46
	6H	19.54	20.77	20.05	21.25	21.78	22.06	23.28	22.56	23.76	24.30
	8H	19.65	20.82	20.17	21.33	21.87	22.49	23.66	23.00	24.16	24.70
	12H	19.71	20.84	20.23	21.34	21.91	22.94	24.06	23.46	24.56	25.13
4H	2H	17.70	19.02	18.19	19.49	20.01	18.55	19.87	19.05	20.34	20.86
	3H	19.58	20.70	20.09	21.21	21.75	20.94	22.05	21.44	22.56	23.11
	4H	20.29	21.31	20.81	21.83	22.40	22.05	23.07	22.57	23.59	24.16
	6H	20.80	21.70	21.34	22.25	22.84	23.12	24.01	23.66	24.56	25.15
	8H	20.95	21.80	21.50	22.34	22.95	23.63	24.47	24.18	25.02	25.62
	12H	21.06	21.82	21.63	22.40	23.00	24.18	24.94	24.75	25.52	26.13
8H	4H	20.77	21.61	21.32	22.16	22.76	22.30	23.15	22.85	23.69	24.30
	6H	21.44	22.15	22.02	22.74	23.35	23.53	24.24	24.11	24.83	25.44
	8H	21.68	22.32	22.27	22.92	23.54	24.16	24.80	24.76	25.40	26.02
	12H	21.86	22.43	22.46	23.02	23.71	24.87	25.44	25.46	26.03	26.72
12H	4H	20.87	21.63	21.44	22.21	22.81	22.32	23.08	22.89	23.66	24.27
	6H	21.60	22.24	22.19	22.84	23.46	23.57	24.21	24.17	24.82	25.44
	8H	21.92	22.49	22.51	23.08	23.76	24.28	24.85	24.87	25.44	26.12