

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: P243705

Luminaire Tested: S125DRP-H375D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243705  
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-H375D835-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: -

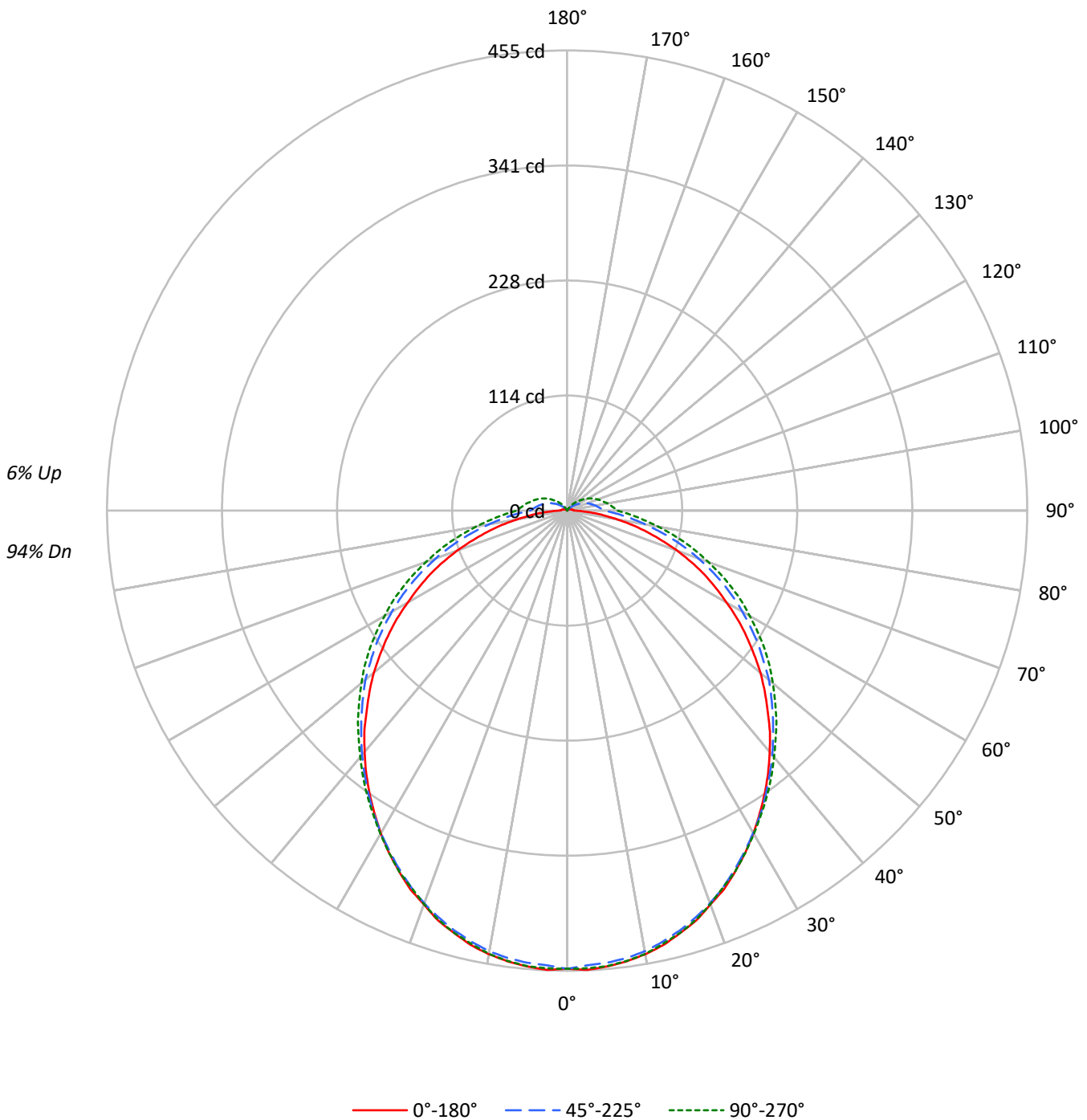
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1406.4 lumens  
Efficiency: N/A  
Efficacy: 125.6 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): 11.2  
Input Voltage (V): 120  
Input Current (Ain): 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	0																			
RCR																																														
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94									94																			
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76									76																			
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63									63																			
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53									53																			
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45									45																			
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39									39																			
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34									34																			
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30									30																			
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27									27																			
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24									24																			
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22									22																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3220	3220	3220
5°	3222	3156	3166
10°	3202	3103	3095
15°	3163	3029	3007
20°	3110	2947	2906
25°	3055	2852	2807
30°	2986	2756	2698
35°	2913	2662	2601
40°	2839	2570	2504
45°	2760	2479	2424
50°	2690	2404	2340
55°	2602	2311	2263
60°	2496	2209	2164
65°	2410	2102	2068
70°	2266	1971	1942
75°	2074	1818	1830
80°	1850	1651	1692
85°	1643	1543	1609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.9	3.0
10°-20°	121.8	8.7
20°-30°	181.3	12.9
30°-40°	214.8	15.3
40°-50°	222.2	15.8
50°-60°	204.9	14.6
60°-70°	165.6	11.8
70°-80°	110.7	7.9
80°-90°	57.1	4.1
90°-100°	32.0	2.3
100°-110°	23.8	1.7
110°-120°	15.8	1.1
120°-130°	8.8	0.6
130°-140°	4.0	0.3
140°-150°	0.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	345.9	24.6
0°-40°	560.7	39.9
0°-60°	987.8	70.2
0°-90°	1321.2	93.9
90°-120°	71.6	5.1
90°-150°	85.2	6.1
90°-180°	85.0	6.0
0°-180°	1406.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	453	453	453	453	453	
5°	452	452	449	452	452	43
15°	432	434	430	432	432	122
25°	394	395	392	394	394	181
35°	341	343	342	344	344	213
45°	280	285	288	292	293	217
55°	216	223	231	236	238	193
65°	150	159	170	177	179	148
75°	82	94	107	116	120	87
85°	25	39	55	64	68	26
90°	7	21	36	46	50	5
95°	6	18	32	42	45	5
105°	4	11	25	34	36	4
115°	3	6	17	25	28	3
125°	2	2	10	16	19	2
135°	1	1	4	10	11	1
145°	0	0	0	2	4	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°	453.0	453.0	453.0	453.0	453.0
2.5°	454.6	453.4	450.0	453.4	453.0
5°	452.5	452.1	448.8	452.1	452.1
7.5°	449.6	449.2	446.3	449.6	449.2
10°	445.4	445.4	442.5	445.0	445.0
12.5°	440.0	440.0	436.6	439.6	438.7
15°	432.4	433.7	429.9	432.4	432.0
17.5°	424.9	424.9	422.0	424.1	424.1
20°	414.4	416.1	413.2	415.3	414.0
22.5°	405.2	406.1	403.1	405.2	403.1
25°	393.5	395.2	391.8	393.9	393.5
27.5°	381.4	382.6	380.1	382.6	381.4
30°	368.4	369.7	368.0	369.7	369.2
32.5°	354.6	357.1	355.8	357.1	356.7
35°	340.8	343.3	342.4	344.1	344.5
37.5°	326.5	329.0	329.0	331.1	331.6
40°	311.5	314.8	315.6	318.6	318.2
42.5°	296.8	300.2	301.4	305.2	305.2
45°	280.5	285.1	287.6	292.2	292.6
47.5°	265.0	270.0	273.8	278.0	278.8
50°	249.5	254.1	260.4	264.6	265.4
52.5°	232.8	238.6	244.9	250.8	252.4
55°	216.4	223.1	230.7	236.1	238.2
57.5°	199.7	206.8	215.2	221.9	223.5
60°	182.1	190.5	200.1	206.8	208.5
62.5°	165.8	175.0	185.0	192.2	194.7
65°	149.9	158.7	169.5	177.1	179.2
67.5°	132.7	142.3	153.6	162.0	164.1
70°	115.5	126.0	138.1	146.1	148.2
72.5°	98.0	109.7	122.7	131.5	134.0
75°	81.6	93.8	107.2	116.4	119.7
77.5°	66.1	78.7	92.1	101.7	104.7
80°	50.7	63.6	78.3	88.3	91.3
82.5°	36.8	50.7	65.7	75.8	78.7
85°	25.1	39.4	54.8	64.5	67.8
87.5°	15.5	29.3	45.2	54.8	58.2
90°	7.1	20.9	36.4	46.5	49.8
92.5°	6.3	19.3	34.3	44.4	47.3
95°	5.9	17.6	32.2	41.9	44.8
97.5°	5.4	15.9	30.1	39.8	42.7
100°	5.0	14.2	28.5	37.7	40.6
102.5°	4.6	13.0	26.4	35.6	38.1
105°	4.2	11.3	24.7	33.5	36.4
107.5°	3.8	9.6	23.0	31.4	34.3
110°	3.3	8.4	20.9	29.3	32.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	2.9	7.1	19.3	27.2	30.1
115°	2.9	5.9	17.2	25.1	28.0
117.5°	2.5	4.6	15.1	23.0	26.0
120°	2.1	3.3	13.4	20.9	23.9
122.5°	2.1	2.5	11.7	18.8	21.8
125°	1.7	1.7	10.0	16.3	19.3
127.5°	1.7	1.3	8.4	14.7	16.7
130°	1.3	0.8	7.1	13.0	15.1
132.5°	1.3	0.8	5.4	11.3	13.4
135°	0.8	0.8	3.8	9.6	11.3
137.5°	0.8	0.4	2.5	7.5	9.6
140°	0.4	0.4	0.8	5.9	7.5
142.5°	0.4	0.4	0.4	4.2	5.9
145°	0.4	0.0	0.0	2.5	3.8
147.5°	0.4	0.0	0.0	0.8	2.1
150°	0.0	0.0	0.0	0.0	0.4
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	13.98	15.51	14.43	15.95	16.41	15.07	16.60	15.52	17.04	17.50
	3H	15.63	17.02	16.10	17.47	17.97	17.23	18.62	17.70	19.07	19.58
	4H	16.20	17.51	16.69	17.98	18.50	18.19	19.51	18.68	19.98	20.50
	6H	16.58	17.81	17.08	18.29	18.82	19.10	20.32	19.60	20.80	21.34
	8H	16.69	17.86	17.20	18.37	18.91	19.53	20.70	20.04	21.20	21.74
	12H	16.75	17.88	17.27	18.37	18.94	19.98	21.10	20.50	21.60	22.17
4H	2H	14.74	16.06	15.23	16.53	17.05	15.59	16.91	16.08	17.38	17.90
	3H	16.62	17.74	17.13	18.25	18.79	17.97	19.09	18.48	19.60	20.15
	4H	17.33	18.35	17.85	18.87	19.44	19.09	20.10	19.61	20.63	21.20
	6H	17.84	18.74	18.38	19.28	19.87	20.15	21.05	20.70	21.60	22.19
	8H	17.99	18.83	18.54	19.38	19.98	20.67	21.51	21.22	22.06	22.66
	12H	18.10	18.86	18.67	19.44	20.04	21.22	21.98	21.79	22.56	23.17
8H	4H	17.81	18.65	18.36	19.20	19.80	19.34	20.18	19.89	20.73	21.33
	6H	18.48	19.19	19.06	19.78	20.39	20.57	21.28	21.15	21.87	22.47
	8H	18.72	19.36	19.31	19.96	20.58	21.20	21.84	21.80	22.44	23.06
	12H	18.90	19.47	19.50	20.06	20.75	21.91	22.48	22.50	23.07	23.76
12H	4H	17.91	18.67	18.48	19.25	19.85	19.36	20.12	19.93	20.70	21.31
	6H	18.64	19.28	19.23	19.88	20.50	20.61	21.25	21.21	21.86	22.48
	8H	18.96	19.52	19.55	20.11	20.80	21.32	21.88	21.91	22.48	23.16