

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: G3-1802-639-17

Luminaire Tested: S125DRP-S850D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-17
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S850D835-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

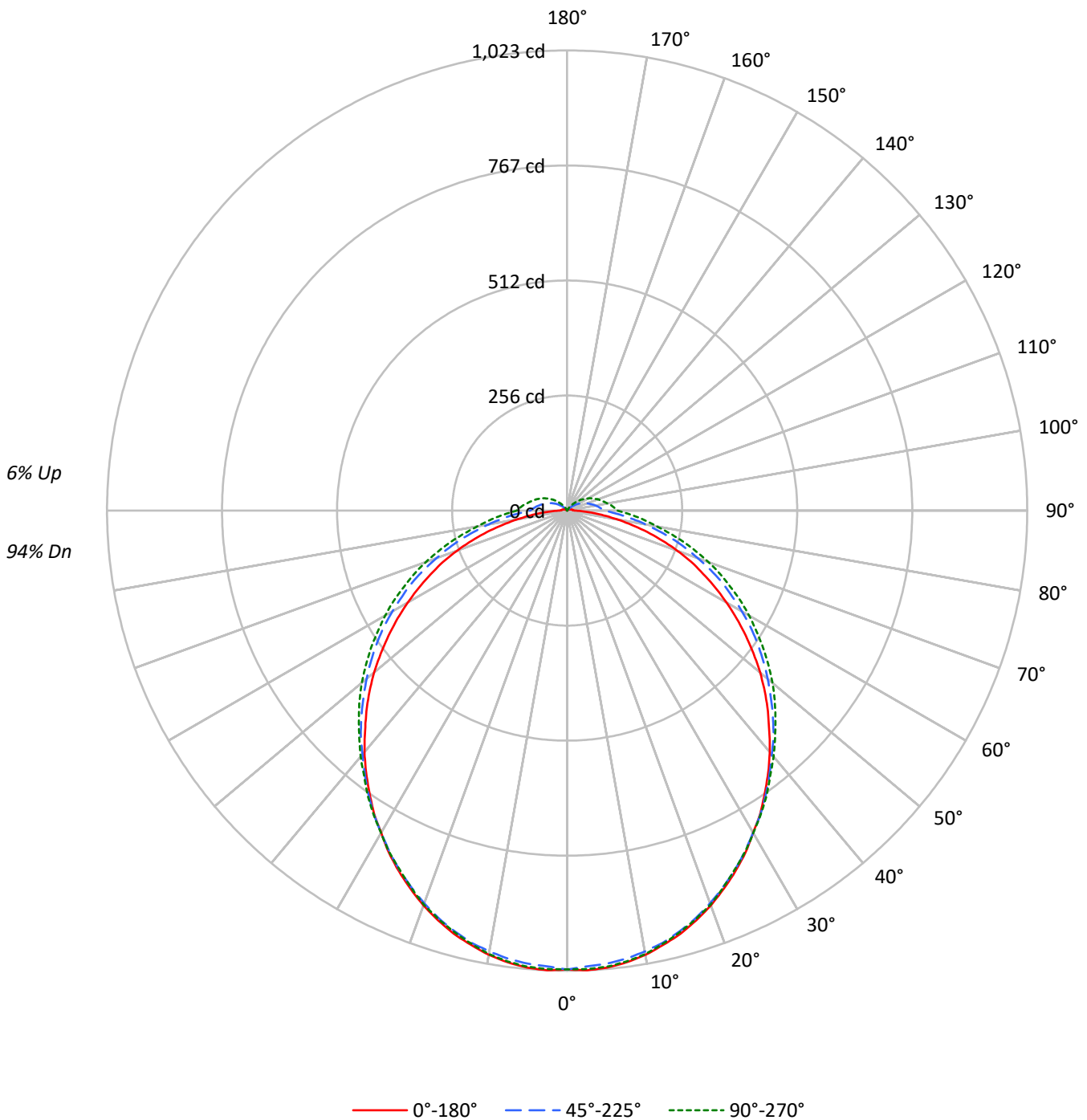
Lumens per Lamp: N/A
Luminaire Lumens: 3159.8 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 26.4
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	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°	7249	7249	7249
5°	7264	7110	7130
10°	7211	6977	6962
15°	7126	6819	6752
20°	7009	6626	6542
25°	6871	6420	6284
30°	6704	6194	6050
35°	6548	5985	5836
40°	6389	5766	5619
45°	6209	5577	5427
50°	6037	5373	5255
55°	5831	5179	5053
60°	5605	4957	4848
65°	5369	4726	4616
70°	5102	4410	4377
75°	4677	4104	4083
80°	4122	3732	3761
85°	3600	3462	3630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.5	3.1
10°-20°	274.0	8.7
20°-30°	407.4	12.9
30°-40°	482.5	15.3
40°-50°	498.9	15.8
50°-60°	459.6	14.5
60°-70°	371.5	11.8
70°-80°	248.6	7.9
80°-90°	128.5	4.1
90°-100°	72.4	2.3
100°-110°	53.4	1.7
110°-120°	35.7	1.1
120°-130°	20.2	0.6
130°-140°	8.8	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	778.0	24.6
0°-40°	1260.5	39.9
0°-60°	2218.9	70.2
0°-90°	2967.5	93.9
90°-120°	161.4	5.1
90°-150°	192.3	6.1
90°-180°	192.0	6.1
0°-180°	3159.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1020	1018	1011	1019	1018	97
15°	974	975	968	974	970	274
25°	885	888	882	886	881	407
35°	766	773	770	773	773	479
45°	631	642	647	654	655	487
55°	485	501	517	528	532	433
65°	334	357	381	396	400	331
75°	184	210	242	262	267	195
85°	55	88	123	145	153	57
90°	16	48	82	105	112	11
95°	13	39	73	95	102	10
105°	9	25	55	75	82	10
115°	6	13	39	57	63	6
125°	4	3	23	39	44	3
135°	2	1	8	21	26	2
145°	1	0	0	5	9	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°	1020	1020	1020	1020	1020
2.5°	1023	1021	1014	1021	1020
5°	1020	1018	1011	1019	1018
7.5°	1013	1012	1005	1012	1011
10°	1003	1003	995	1002	1001
12.5°	989	990	984	989	986
15°	974	975	968	974	970
17.5°	955	957	950	955	952
20°	934	936	929	932	932
22.5°	910	914	906	910	907
25°	885	888	882	886	881
27.5°	858	862	855	858	856
30°	827	833	827	829	828
32.5°	799	804	800	802	801
35°	766	773	770	773	773
37.5°	734	740	739	743	742
40°	701	709	708	712	714
42.5°	665	676	679	684	684
45°	631	642	647	654	655
47.5°	596	606	614	624	626
50°	560	571	582	593	596
52.5°	522	536	550	562	564
55°	485	501	517	528	532
57.5°	447	466	484	496	499
60°	409	429	449	464	467
62.5°	372	392	414	431	435
65°	334	357	381	396	400
67.5°	299	321	345	363	368
70°	260	283	309	328	334
72.5°	222	246	275	296	300
75°	184	210	242	262	267
77.5°	147	177	207	229	233
80°	113	143	177	199	203
82.5°	82	114	149	170	178
85°	55	88	123	145	153
87.5°	35	67	101	124	131
90°	16	48	82	105	112
92.5°	14	43	78	100	107
95°	13	39	73	95	102
97.5°	12	36	69	90	97
100°	11	32	64	85	91
102.5°	10	29	60	80	86
105°	9	25	55	75	82
107.5°	8	22	51	71	77
110°	7	19	47	66	73



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7	16	43	61	68
115°	6	13	39	57	63
117.5°	5	10	35	52	59
120°	5	8	31	48	54
122.5°	4	5	27	43	49
125°	4	3	23	39	44
127.5°	3	2	19	34	40
130°	3	2	16	30	35
132.5°	2	2	12	26	30
135°	2	1	8	21	26
137.5°	2	1	5	17	21
140°	1	1	2	13	17
142.5°	1	0	0	9	13
145°	1	0	0	5	9
147.5°	0	0	0	2	4
150°	0	0	0	0	1
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	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	16.80	18.33	17.26	18.77	19.24	17.84	19.37	18.30	19.81	20.28
	3H	18.45	19.84	18.92	20.29	20.80	20.02	21.41	20.49	21.86	22.37
	4H	19.02	20.34	19.51	20.81	21.33	20.98	22.30	21.47	22.77	23.29
	6H	19.40	20.63	19.90	21.11	21.64	21.88	23.11	22.39	23.59	24.12
	8H	19.50	20.68	20.02	21.18	21.72	22.31	23.49	22.83	23.99	24.53
	12H	19.57	20.69	20.09	21.19	21.76	22.77	23.90	23.30	24.40	24.97
4H	2H	17.56	18.88	18.05	19.35	19.87	18.38	19.69	18.87	20.16	20.68
	3H	19.44	20.56	19.95	21.07	21.61	20.77	21.89	21.27	22.40	22.94
	4H	20.14	21.16	20.67	21.69	22.26	21.88	22.90	22.41	23.42	24.00
	6H	20.65	21.55	21.20	22.10	22.69	22.95	23.84	23.49	24.39	24.98
	8H	20.80	21.65	21.35	22.19	22.80	23.47	24.31	24.02	24.86	25.46
	12H	20.90	21.67	21.48	22.24	22.85	24.02	24.79	24.60	25.36	25.97
8H	4H	20.63	21.47	21.18	22.02	22.62	22.14	22.98	22.69	23.53	24.13
	6H	21.29	22.00	21.87	22.59	23.20	23.36	24.07	23.95	24.66	25.27
	8H	21.53	22.17	22.13	22.77	23.39	24.00	24.64	24.60	25.24	25.86
	12H	21.71	22.28	22.31	22.87	23.56	24.71	25.28	25.31	25.87	26.56
12H	4H	20.73	21.49	21.30	22.07	22.67	22.16	22.92	22.73	23.50	24.11
	6H	21.45	22.09	22.05	22.70	23.32	23.41	24.05	24.01	24.66	25.28
	8H	21.77	22.34	22.37	22.93	23.62	24.12	24.69	24.72	25.28	25.97