

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: G3-1802-639-56

Luminaire Tested: S125DRP-H850D835-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-56
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H850D835-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

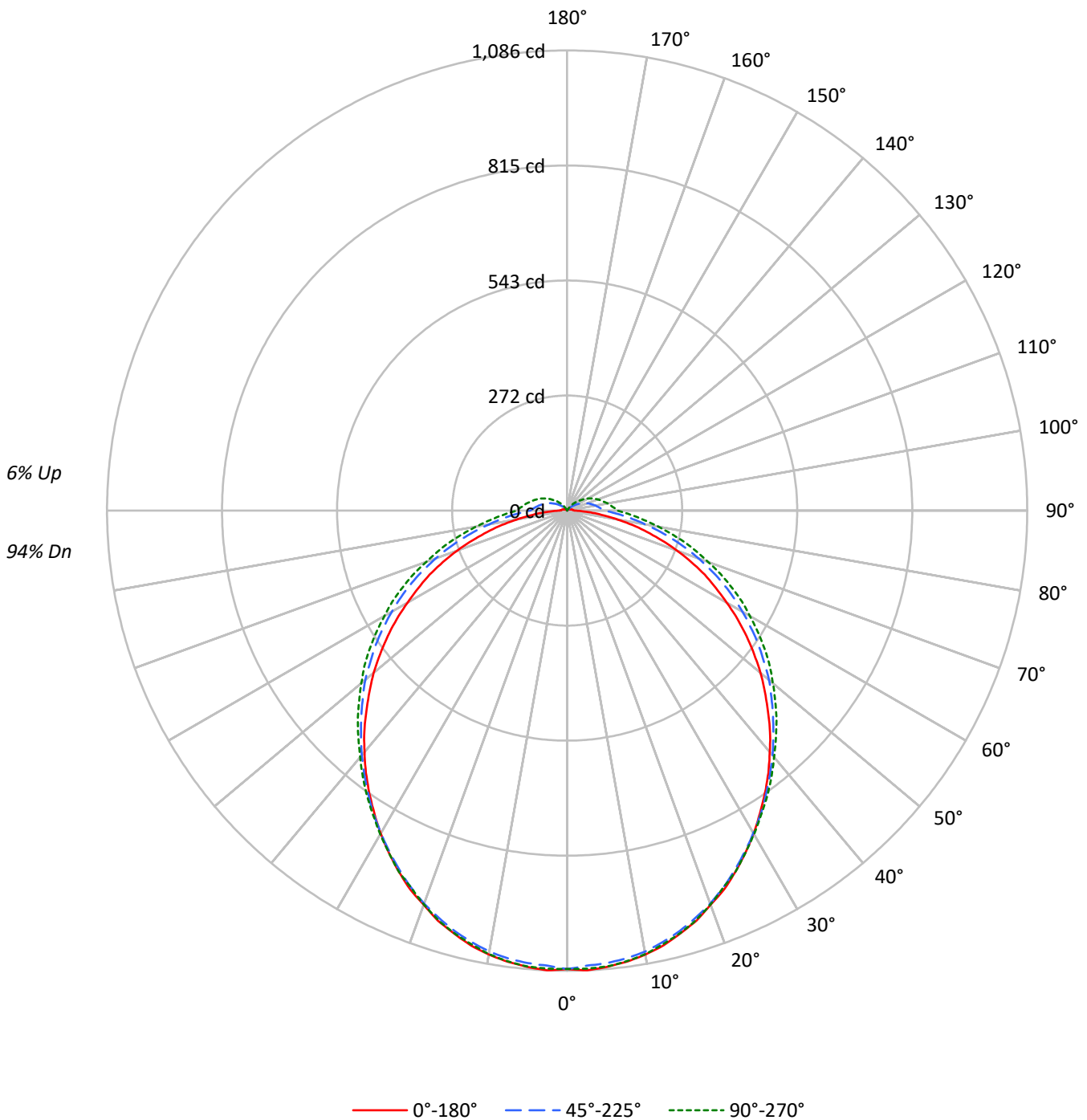
Lumens per Lamp: N/A
Luminaire Lumens: 3359.6 lumens
Efficiency: N/A
Efficacy: 131.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 25.6
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	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°	7690	7690	7690
5°	7698	7539	7564
10°	7650	7411	7394
15°	7557	7235	7183
20°	7430	7040	6942
25°	7298	6813	6705
30°	7133	6583	6445
35°	6958	6358	6213
40°	6780	6140	5981
45°	6593	5922	5791
50°	6425	5742	5590
55°	6215	5519	5405
60°	5961	5278	5170
65°	5755	5023	4939
70°	5415	4710	4639
75°	4957	4341	4374
80°	4414	3943	4039
85°	3927	3687	3844

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6593 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	3.0
10°-20°	290.9	8.7
20°-30°	433.0	12.9
30°-40°	513.0	15.3
40°-50°	530.8	15.8
50°-60°	489.5	14.6
60°-70°	395.6	11.8
70°-80°	264.4	7.9
80°-90°	136.4	4.1
90°-100°	76.5	2.3
100°-110°	56.8	1.7
110°-120°	37.8	1.1
120°-130°	21.1	0.6
130°-140°	9.5	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°	826.3	24.6
0°-40°	1339.3	39.9
0°-60°	2359.6	70.2
0°-90°	3155.9	93.9
90°-120°	171.0	5.1
90°-150°	203.6	6.1
90°-180°	204.0	6.1
0°-180°	3359.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1081	1080	1072	1080	1080	103
15°	1033	1036	1027	1033	1032	291
25°	940	944	936	941	940	433
35°	814	820	818	822	823	509
45°	670	681	687	698	699	518
55°	517	533	551	564	569	462
65°	358	379	405	423	428	353
75°	195	224	256	278	286	207
85°	60	94	131	154	162	62
90°	17	50	87	111	119	12
95°	14	42	77	100	107	11
105°	10	27	59	80	87	11
115°	7	14	41	60	67	7
125°	4	4	24	39	46	4
135°	2	2	9	23	27	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082	1082	1082	1082	1082
2.5°	1086	1083	1075	1083	1082
5°	1081	1080	1072	1080	1080
7.5°	1074	1073	1066	1074	1073
10°	1064	1064	1057	1063	1063
12.5°	1051	1051	1043	1050	1048
15°	1033	1036	1027	1033	1032
17.5°	1015	1015	1008	1013	1013
20°	990	994	987	992	989
22.5°	968	970	963	968	963
25°	940	944	936	941	940
27.5°	911	914	908	914	911
30°	880	883	879	883	882
32.5°	847	853	850	853	852
35°	814	820	818	822	823
37.5°	780	786	786	791	792
40°	744	752	754	761	760
42.5°	709	717	720	729	729
45°	670	681	687	698	699
47.5°	633	645	654	664	666
50°	596	607	622	632	634
52.5°	556	570	585	599	603
55°	517	533	551	564	569
57.5°	477	494	514	530	534
60°	435	455	478	494	498
62.5°	396	418	442	459	465
65°	358	379	405	423	428
67.5°	317	340	367	387	392
70°	276	301	330	349	354
72.5°	234	262	293	314	320
75°	195	224	256	278	286
77.5°	158	188	220	243	250
80°	121	152	187	211	218
82.5°	88	121	157	181	188
85°	60	94	131	154	162
87.5°	37	70	108	131	139
90°	17	50	87	111	119
92.5°	15	46	82	106	113
95°	14	42	77	100	107
97.5°	13	38	72	95	102
100°	12	34	68	90	97
102.5°	11	31	63	85	91
105°	10	27	59	80	87
107.5°	9	23	55	75	82
110°	8	20	50	70	77



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7	17	46	65	72
115°	7	14	41	60	67
117.5°	6	11	36	55	62
120°	5	8	32	50	57
122.5°	5	6	28	45	52
125°	4	4	24	39	46
127.5°	4	3	20	35	40
130°	3	2	17	31	36
132.5°	3	2	13	27	32
135°	2	2	9	23	27
137.5°	2	1	6	18	23
140°	1	1	2	14	18
142.5°	1	1	1	10	14
145°	1	0	0	6	9
147.5°	1	0	0	2	5
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	17.00	18.53	17.46	18.97	19.44	18.09	19.62	18.55	20.06	20.53
	3H	18.65	20.05	19.12	20.49	21.00	20.26	21.65	20.73	22.10	22.60
	4H	19.22	20.54	19.71	21.01	21.53	21.22	22.54	21.71	23.00	23.52
	6H	19.61	20.83	20.11	21.31	21.85	22.12	23.35	22.62	23.83	24.36
	8H	19.71	20.89	20.23	21.39	21.93	22.55	23.72	23.07	24.23	24.77
	12H	19.78	20.90	20.30	21.40	21.97	23.00	24.13	23.52	24.62	25.20
4H	2H	17.77	19.09	18.26	19.55	20.07	18.62	19.94	19.11	20.40	20.92
	3H	19.65	20.77	20.15	21.28	21.82	21.00	22.12	21.50	22.63	23.17
	4H	20.35	21.37	20.88	21.89	22.47	22.11	23.13	22.63	23.65	24.23
	6H	20.86	21.76	21.41	22.31	22.90	23.18	24.08	23.72	24.63	25.21
	8H	21.02	21.86	21.57	22.41	23.01	23.69	24.54	24.24	25.09	25.69
	12H	21.12	21.88	21.69	22.46	23.07	24.25	25.01	24.82	25.59	26.19
8H	4H	20.83	21.68	21.38	22.22	22.83	22.37	23.21	22.92	23.76	24.36
	6H	21.50	22.21	22.08	22.80	23.41	23.59	24.30	24.17	24.89	25.50
	8H	21.74	22.38	22.34	22.98	23.60	24.23	24.86	24.82	25.47	26.09
	12H	21.93	22.50	22.52	23.09	23.77	24.93	25.50	25.53	26.09	26.78
12H	4H	20.93	21.70	21.50	22.27	22.88	22.39	23.15	22.96	23.73	24.33
	6H	21.66	22.30	22.26	22.91	23.53	23.64	24.28	24.23	24.88	25.50
	8H	21.98	22.55	22.58	23.14	23.83	24.34	24.91	24.94	25.50	26.19