

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: G3-1802-639-66

Luminaire Tested: S125RDRP-H850D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-66
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H850D835-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

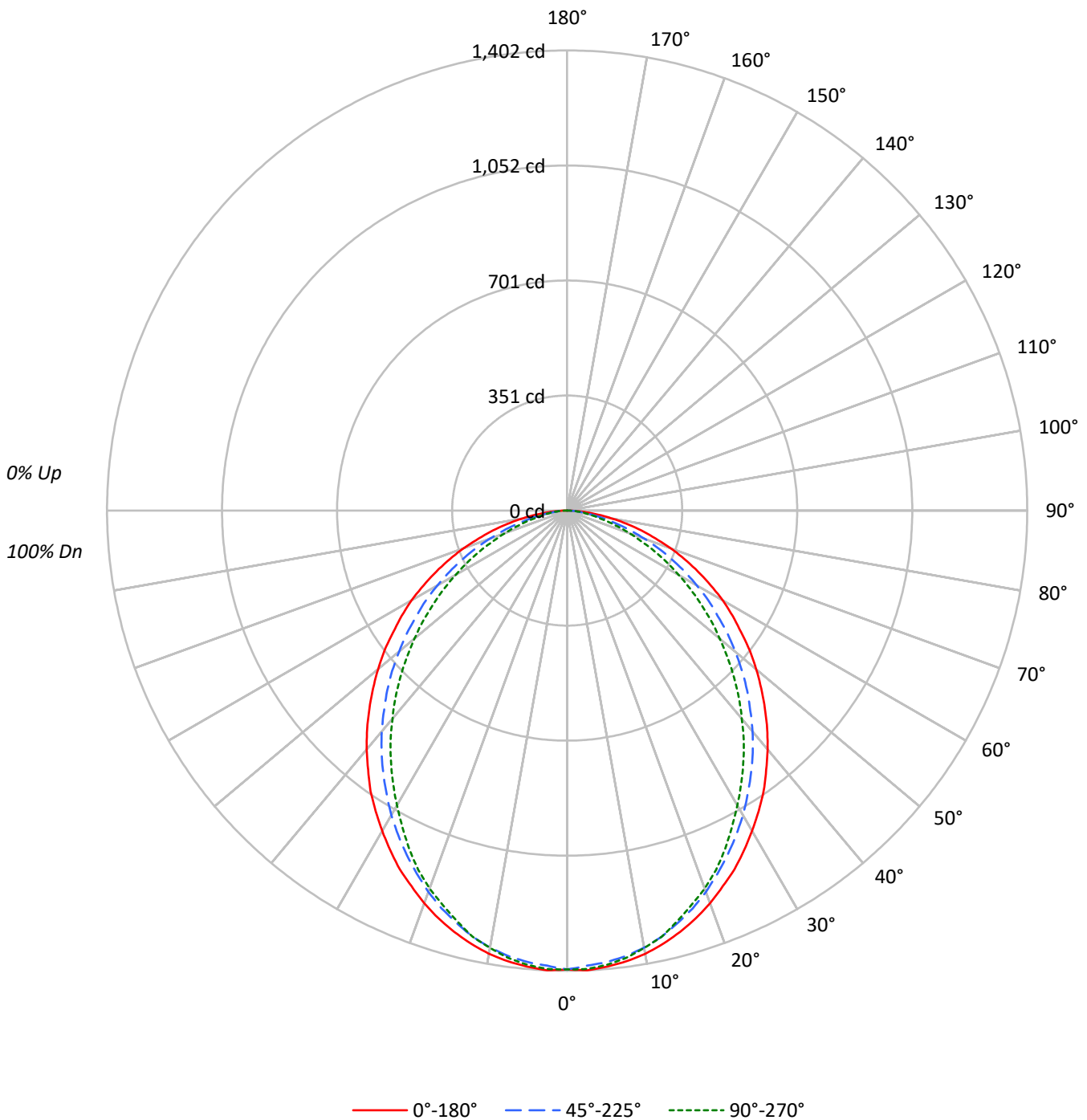
Lumens per Lamp: N/A
Luminaire Lumens: 3341.6 lumens
Efficiency: N/A
Efficacy: 130.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.41' x L: 3.88' x H: 0')
CIE Type: Direct

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																		
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	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72																												
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61																												
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53																												
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46																												
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41																												
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36																												
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32																												
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29																												
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9559	9559	9559
5°	9575	9479	9534
10°	9519	9387	9394
15°	9408	9210	9167
20°	9263	8994	8914
25°	9099	8729	8586
30°	8898	8456	8188
35°	8714	8155	7813
40°	8480	7846	7391
45°	8239	7494	6953
50°	7999	7106	6457
55°	7713	6676	5937
60°	7480	6236	5374
65°	7119	5711	4757
70°	6717	4998	4058
75°	6182	4174	3302
80°	5434	3229	2717
85°	4629	2667	2510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8239 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.9
10°-20°	368.8	11.0
20°-30°	536.7	16.1
30°-40°	614.6	18.4
40°-50°	601.4	18.0
50°-60°	507.8	15.2
60°-70°	355.5	10.6
70°-80°	180.6	5.4
80°-90°	44.4	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1037.2	31.0
0°-40°	1651.8	49.4
0°-60°	2761.1	82.6
0°-90°	3341.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3341.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1395	1392	1381	1390	1389	132
15°	1329	1324	1301	1300	1295	375
25°	1206	1192	1157	1145	1138	555
35°	1044	1019	977	948	936	652
45°	852	824	775	734	719	658
55°	647	619	560	515	498	581
65°	440	406	353	309	294	436
75°	234	205	158	132	125	247
85°	59	38	34	32	32	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1398	1398	1398	1398	1398
2.5°	1402	1399	1388	1398	1398
5°	1395	1392	1381	1390	1389
7.5°	1385	1382	1369	1378	1375
10°	1371	1367	1352	1357	1353
12.5°	1352	1348	1330	1332	1330
15°	1329	1324	1301	1300	1295
17.5°	1303	1296	1271	1268	1260
20°	1273	1264	1236	1230	1225
22.5°	1239	1230	1197	1188	1185
25°	1206	1192	1157	1145	1138
27.5°	1167	1151	1115	1099	1087
30°	1127	1109	1071	1050	1037
32.5°	1086	1065	1024	998	987
35°	1044	1019	977	948	936
37.5°	996	971	929	895	884
40°	950	924	879	842	828
42.5°	902	875	826	787	775
45°	852	824	775	734	719
47.5°	802	774	723	682	663
50°	752	722	668	626	607
52.5°	702	669	616	571	554
55°	647	619	560	515	498
57.5°	598	567	511	465	446
60°	547	513	456	411	393
62.5°	493	459	404	359	343
65°	440	406	353	309	294
67.5°	387	355	302	261	244
70°	336	303	250	213	203
72.5°	282	256	203	170	162
75°	234	205	158	132	125
77.5°	185	157	117	99	93
80°	138	114	82	71	69
82.5°	95	72	54	52	51
85°	59	38	34	32	32
87.5°	25	16	16	15	16
90°	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	19.27	20.85	19.63	21.16	21.48	17.76	19.34	18.12	19.65	19.97
	3H	21.03	22.45	21.41	22.78	23.14	19.04	20.46	19.42	20.79	21.15
	4H	21.69	23.02	22.09	23.37	23.75	19.43	20.76	19.82	21.11	21.49
	6H	22.16	23.39	22.57	23.76	24.15	19.66	20.90	20.07	21.26	21.65
	8H	22.30	23.48	22.73	23.87	24.27	19.74	20.92	20.16	21.30	21.70
	12H	22.40	23.53	22.83	23.91	24.34	19.79	20.92	20.22	21.30	21.73
4H	2H	19.67	21.00	20.07	21.35	21.73	18.44	19.78	18.84	20.13	20.50
	3H	21.63	22.74	22.04	23.14	23.54	19.91	21.02	20.32	21.42	21.82
	4H	22.41	23.41	22.84	23.83	24.27	20.37	21.38	20.81	21.79	22.23
	6H	23.01	23.88	23.46	24.32	24.78	20.69	21.57	21.15	22.01	22.47
	8H	23.19	24.01	23.65	24.45	24.92	20.80	21.61	21.26	22.06	22.52
	12H	23.33	24.06	23.81	24.53	25.00	20.88	21.61	21.36	22.09	22.56
8H	4H	22.53	23.35	22.99	23.79	24.26	20.68	21.50	21.14	21.94	22.41
	6H	23.21	23.88	23.70	24.37	24.85	21.08	21.75	21.57	22.24	22.72
	8H	23.44	24.05	23.96	24.56	25.05	21.23	21.84	21.74	22.34	22.83
	12H	23.63	24.17	24.14	24.66	25.22	21.37	21.90	21.88	22.39	22.96
12H	4H	22.52	23.26	23.01	23.73	24.20	20.72	21.45	21.20	21.93	22.40
	6H	23.20	23.81	23.71	24.31	24.80	21.13	21.73	21.64	22.24	22.73
	8H	23.48	24.01	23.98	24.50	25.07	21.33	21.86	21.83	22.35	22.92