

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: G3-1802-639-27

Luminaire Tested: S125RDRP-S850D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-27
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S850D835-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

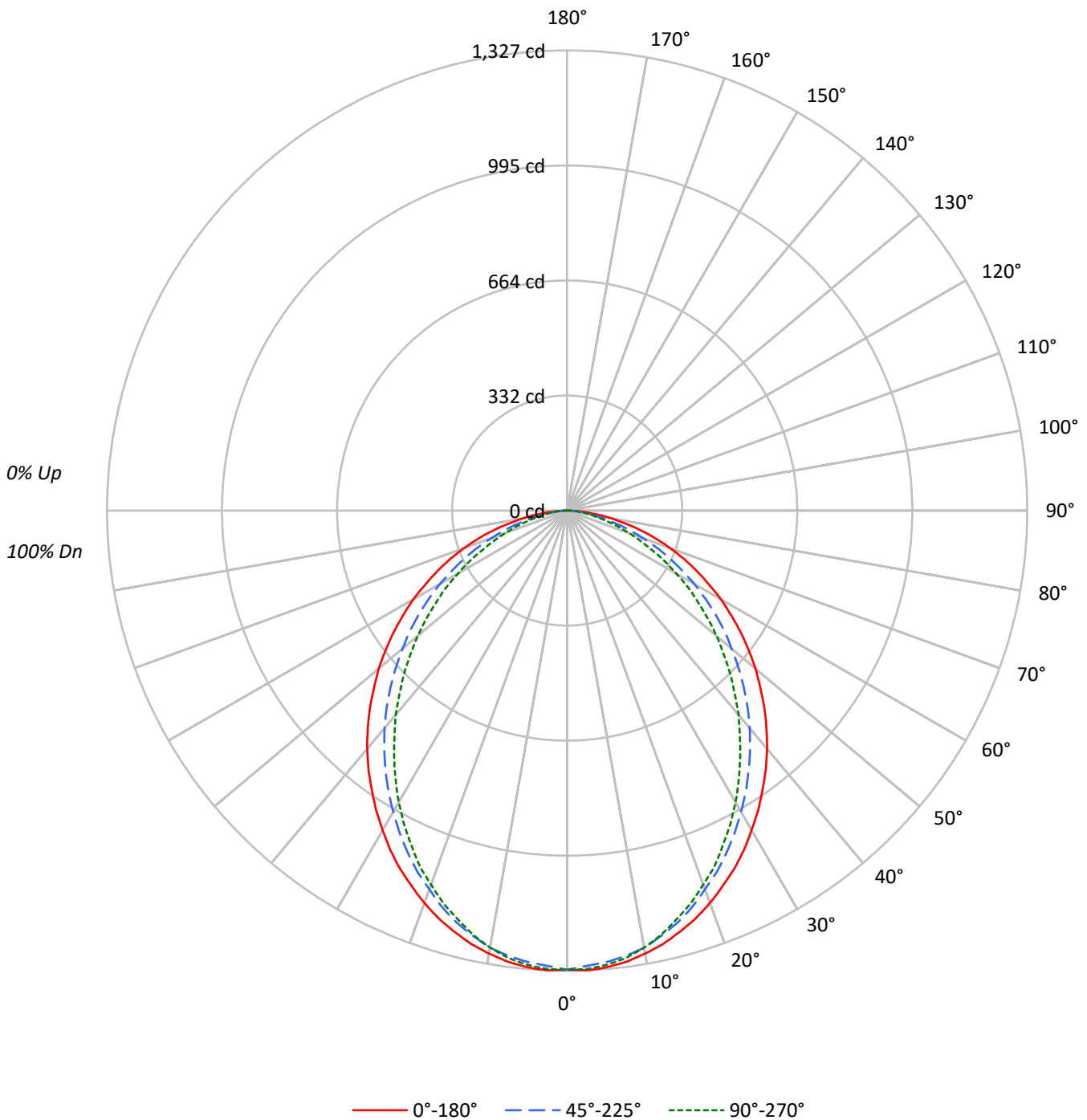
Lumens per Lamp: N/A
Luminaire Lumens: 3128.1 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.41' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100									100																			
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85									85																			
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72									72																			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61									61																			
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53									53																			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46									46																			
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41									41																			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36									36																			
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33									33																			
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29									29																			
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27									27																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9053	9053	9053
5°	9074	8971	9026
10°	9005	8887	8887
15°	8898	8707	8636
20°	8761	8455	8353
25°	8601	8208	8027
30°	8401	7919	7666
35°	8197	7621	7262
40°	8007	7310	6864
45°	7775	6962	6430
50°	7542	6585	5978
55°	7272	6223	5496
60°	7002	5785	4978
65°	6682	5274	4385
70°	6317	4638	3778
75°	5812	3910	3144
80°	5119	3071	2638
85°	4315	2510	2354

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7775 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	4.0
10°-20°	348.2	11.1
20°-30°	504.9	16.1
30°-40°	575.3	18.4
40°-50°	560.7	17.9
50°-60°	471.9	15.1
60°-70°	330.7	10.6
70°-80°	169.5	5.4
80°-90°	42.3	1.4
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°	977.8	31.3
0°-40°	1553.1	49.6
0°-60°	2585.7	82.7
0°-90°	3128.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3128.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1322	1318	1307	1317	1315	125
15°	1257	1251	1230	1229	1220	354
25°	1140	1125	1088	1075	1064	525
35°	982	958	913	884	870	615
45°	804	775	720	680	665	620
55°	610	578	522	477	461	545
65°	413	379	326	286	271	409
75°	220	190	148	126	119	233
85°	55	37	32	31	30	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1324	1324	1324	1324	1324
2.5°	1327	1324	1314	1324	1323
5°	1322	1318	1307	1317	1315
7.5°	1312	1308	1295	1303	1301
10°	1297	1294	1280	1283	1280
12.5°	1280	1276	1256	1258	1253
15°	1257	1251	1230	1229	1220
17.5°	1233	1224	1199	1194	1187
20°	1204	1194	1162	1157	1148
22.5°	1172	1162	1128	1117	1110
25°	1140	1125	1088	1075	1064
27.5°	1104	1086	1047	1030	1019
30°	1064	1045	1003	980	971
32.5°	1025	1002	959	933	921
35°	982	958	913	884	870
37.5°	941	912	866	832	818
40°	897	867	819	781	769
42.5°	851	820	770	734	715
45°	804	775	720	680	665
47.5°	755	725	670	629	612
50°	709	676	619	577	562
52.5°	659	625	572	526	511
55°	610	578	522	477	461
57.5°	560	526	472	428	414
60°	512	477	423	379	364
62.5°	461	428	373	333	318
65°	413	379	326	286	271
67.5°	365	331	280	242	230
70°	316	282	232	201	189
72.5°	268	235	189	161	154
75°	220	190	148	126	119
77.5°	171	147	112	95	89
80°	130	106	78	69	67
82.5°	90	69	52	49	48
85°	55	37	32	31	30
87.5°	23	16	15	15	14
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	18.99	20.57	19.36	20.88	21.20	17.43	19.00	17.79	19.32	19.63
	3H	20.78	22.20	21.16	22.52	22.88	18.74	20.16	19.12	20.49	20.85
	4H	21.44	22.77	21.84	23.12	23.50	19.15	20.48	19.55	20.83	21.21
	6H	21.91	23.14	22.32	23.51	23.90	19.41	20.64	19.82	21.00	21.40
	8H	22.06	23.23	22.48	23.62	24.02	19.49	20.66	19.91	21.05	21.45
	12H	22.16	23.28	22.59	23.66	24.09	19.54	20.67	19.97	21.05	21.48
4H	2H	19.39	20.72	19.78	21.07	21.44	18.11	19.45	18.51	19.79	20.17
	3H	21.37	22.48	21.78	22.88	23.28	19.61	20.73	20.02	21.12	21.52
	4H	22.15	23.15	22.58	23.57	24.01	20.11	21.11	20.54	21.53	21.96
	6H	22.75	23.62	23.20	24.06	24.52	20.45	21.32	20.91	21.77	22.22
	8H	22.94	23.75	23.40	24.20	24.66	20.56	21.38	21.02	21.82	22.29
	12H	23.08	23.81	23.56	24.28	24.75	20.65	21.38	21.13	21.86	22.33
8H	4H	22.28	23.09	22.74	23.54	24.00	20.42	21.24	20.89	21.68	22.15
	6H	22.95	23.63	23.45	24.12	24.59	20.85	21.52	21.34	22.01	22.49
	8H	23.20	23.80	23.71	24.31	24.80	21.01	21.61	21.52	22.12	22.61
	12H	23.40	23.93	23.90	24.42	24.98	21.15	21.68	21.66	22.17	22.74
12H	4H	22.27	23.00	22.75	23.48	23.95	20.46	21.19	20.94	21.67	22.14
	6H	22.95	23.55	23.46	24.06	24.55	20.90	21.51	21.41	22.01	22.50
	8H	23.23	23.77	23.74	24.26	24.82	21.11	21.64	21.61	22.13	22.69