

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: G3-1802-639-24

Luminaire Tested: S122RDRP-S675D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-24
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S675D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

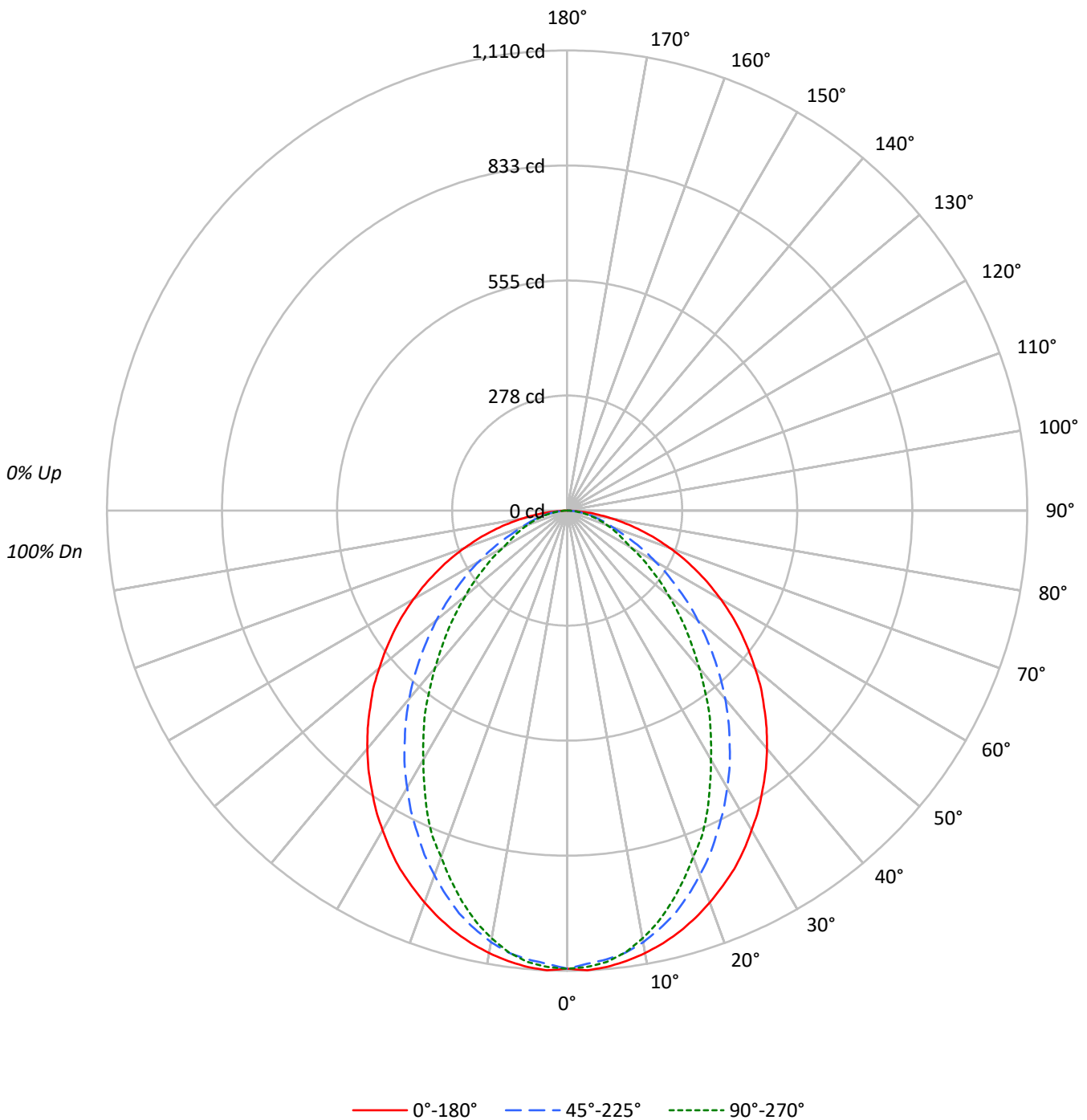
Lumens per Lamp: N/A
Luminaire Lumens: 2272.6 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86													86															
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74													74															
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64													64															
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55													55															
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49													49															
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43													43															
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39													39															
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35													35															
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32													32															
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29													29															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21048	21048	21048
5°	21128	20784	20899
10°	20966	20444	20270
15°	20725	19838	19266
20°	20392	18973	18020
25°	20050	17990	16813
30°	19575	16980	15264
35°	19114	15882	13905
40°	18649	14745	12333
45°	18102	13469	10910
50°	17543	12179	9512
55°	16970	10793	8169
60°	16305	9333	6781
65°	15549	7842	6175
70°	14647	6460	5681
75°	13541	5888	5299
80°	11956	5265	4826
85°	9398	4152	4152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18102 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.6	4.6
10°-20°	284.3	12.5
20°-30°	399.1	17.6
30°-40°	435.1	19.1
40°-50°	399.9	17.6
50°-60°	314.1	13.8
60°-70°	204.4	9.0
70°-80°	105.2	4.6
80°-90°	26.9	1.2
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°	787.0	34.6
0°-40°	1222.1	53.8
0°-60°	1936.0	85.2
0°-90°	2272.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2272.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1105	1100	1087	1096	1093	105
15°	1051	1040	1006	987	977	296
25°	954	922	856	815	800	439
35°	822	771	683	620	598	514
45°	672	605	500	429	405	519
55°	511	433	325	265	246	457
65°	345	264	174	140	137	342
75°	184	114	80	73	72	195
85°	43	22	19	19	19	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105	1105	1105	1105	1105
2.5°	1110	1105	1094	1104	1102
5°	1105	1100	1087	1096	1093
7.5°	1096	1090	1076	1080	1075
10°	1084	1077	1057	1054	1048
12.5°	1069	1060	1033	1027	1016
15°	1051	1040	1006	987	977
17.5°	1030	1014	972	950	934
20°	1006	986	936	911	889
22.5°	980	957	899	865	850
25°	954	922	856	815	800
27.5°	923	889	816	769	746
30°	890	852	772	721	694
32.5°	858	812	730	670	645
35°	822	771	683	620	598
37.5°	787	732	639	570	545
40°	750	690	593	522	496
42.5°	712	648	547	473	448
45°	672	605	500	429	405
47.5°	634	563	455	384	362
50°	592	521	411	342	321
52.5°	551	476	369	303	284
55°	511	433	325	265	246
57.5°	470	390	286	230	214
60°	428	348	245	194	178
62.5°	387	307	210	162	154
65°	345	264	174	140	137
67.5°	305	224	140	123	120
70°	263	185	116	106	102
72.5°	223	149	97	89	87
75°	184	114	80	73	72
77.5°	145	81	63	59	57
80°	109	58	48	44	44
82.5°	76	39	33	31	31
85°	43	22	19	19	19
87.5°	16	8	8	7	7
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	21.82	23.34	22.19	23.66	23.97	17.78	19.30	18.15	19.62	19.93
	3H	23.59	24.95	23.96	25.28	25.64	19.05	20.41	19.42	20.74	21.10
	4H	24.25	25.53	24.65	25.88	26.26	19.55	20.83	19.95	21.18	21.56
	6H	24.74	25.92	25.15	26.29	26.68	19.93	21.11	20.34	21.48	21.87
	8H	24.91	26.03	25.33	26.42	26.82	20.05	21.18	20.48	21.57	21.97
	12H	25.01	26.09	25.44	26.47	26.90	20.13	21.21	20.56	21.59	22.02
4H	2H	21.92	23.20	22.32	23.55	23.93	18.48	19.76	18.88	20.11	20.48
	3H	23.86	24.92	24.27	25.32	25.72	19.92	20.98	20.33	21.38	21.78
	4H	24.61	25.56	25.04	25.98	26.42	20.52	21.48	20.95	21.89	22.33
	6H	25.20	26.03	25.66	26.47	26.93	21.01	21.84	21.46	22.28	22.74
	8H	25.41	26.19	25.88	26.64	27.10	21.17	21.95	21.63	22.39	22.86
	12H	25.57	26.26	26.05	26.74	27.21	21.29	21.98	21.77	22.46	22.93
8H	4H	24.63	25.41	25.09	25.85	26.32	20.87	21.65	21.34	22.09	22.56
	6H	25.27	25.91	25.77	26.40	26.88	21.46	22.10	21.96	22.59	23.07
	8H	25.52	26.10	26.03	26.61	27.09	21.68	22.26	22.19	22.77	23.26
	12H	25.72	26.23	26.23	26.73	27.29	21.86	22.37	22.37	22.86	23.43
12H	4H	24.62	25.31	25.10	25.79	26.26	20.92	21.61	21.40	22.09	22.56
	6H	25.25	25.83	25.76	26.34	26.83	21.52	22.10	22.04	22.61	23.10
	8H	25.53	26.04	26.04	26.54	27.10	21.80	22.31	22.31	22.80	23.36