

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: G3-1802-639-63

Luminaire Tested: S122RDRP-H675D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-63
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

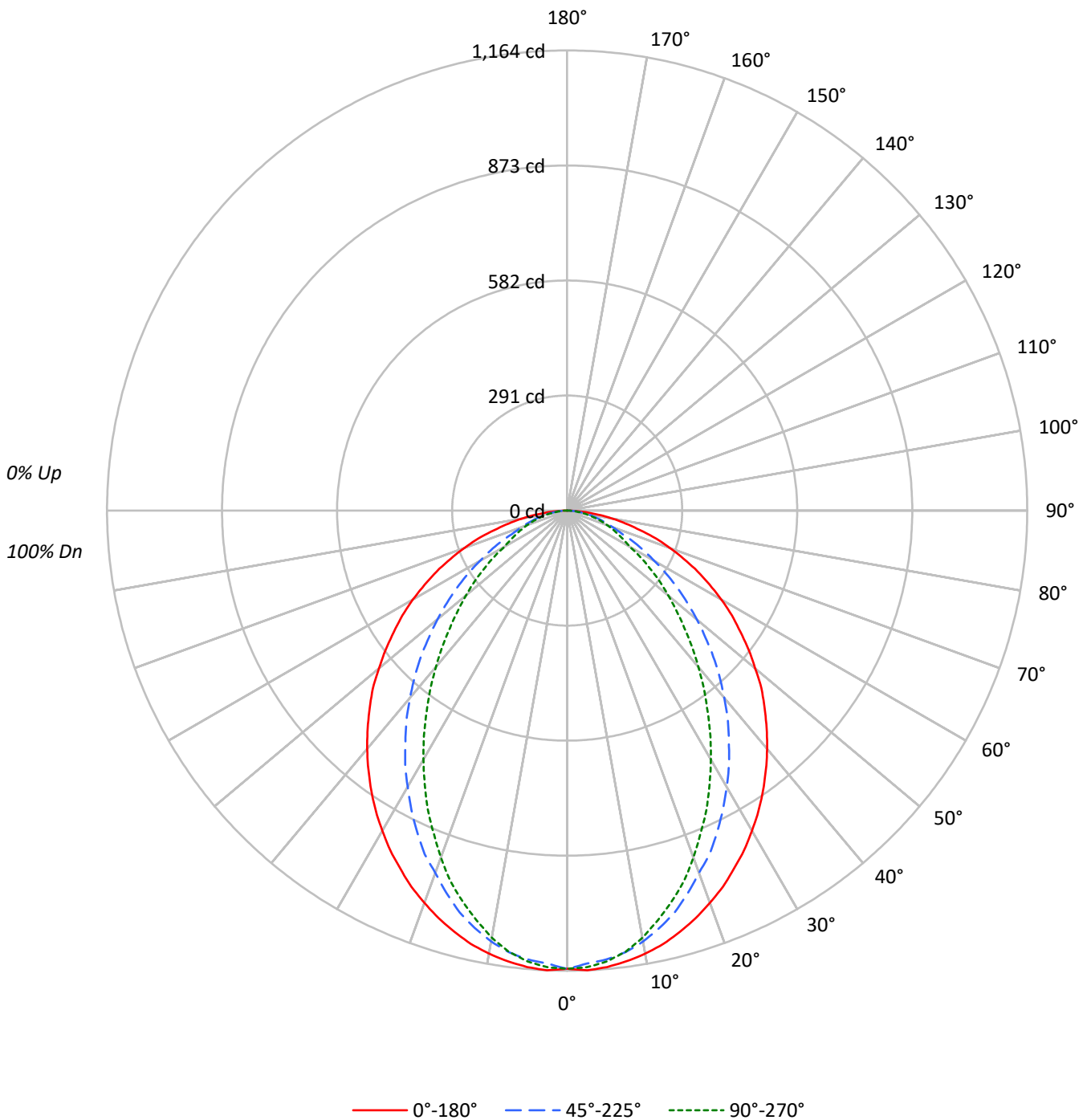
Lumens per Lamp: N/A
Luminaire Lumens: 2376.9 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 25.6
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22076	22076	22076
5°	22161	21797	21893
10°	22011	21411	21218
15°	21751	20745	20173
20°	21405	19763	18932
25°	20996	18873	17528
30°	20565	17749	15990
35°	20091	16579	14394
40°	19569	15367	12830
45°	19018	14088	11287
50°	18402	12683	9897
55°	17767	11291	8535
60°	17181	9714	6971
65°	16406	8203	6445
70°	15427	6794	6015
75°	14057	6182	5520
80°	12615	5485	4936
85°	10490	4590	4371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19018 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	4.6
10°-20°	297.5	12.5
20°-30°	417.4	17.6
30°-40°	454.6	19.1
40°-50°	417.8	17.6
50°-60°	327.9	13.8
60°-70°	213.9	9.0
70°-80°	110.6	4.7
80°-90°	28.6	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°	823.4	34.6
0°-40°	1278.0	53.8
0°-60°	2023.8	85.1
0°-90°	2376.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2376.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1159	1159	1159	1159	1159	
5°	1159	1153	1140	1148	1145	110
15°	1103	1090	1052	1031	1023	311
25°	999	964	898	854	834	460
35°	864	807	713	647	619	540
45°	706	634	523	447	419	545
55°	535	455	340	276	257	479
65°	364	276	182	148	143	359
75°	191	119	84	77	75	204
85°	48	23	21	20	20	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1159	1159	1159	1159	1159
2.5°	1164	1159	1147	1158	1156
5°	1159	1153	1140	1148	1145
7.5°	1150	1144	1127	1131	1126
10°	1138	1130	1107	1103	1097
12.5°	1123	1112	1081	1069	1061
15°	1103	1090	1052	1031	1023
17.5°	1081	1062	1015	991	983
20°	1056	1034	975	950	934
22.5°	1030	1002	941	902	883
25°	999	964	898	854	834
27.5°	969	928	853	802	780
30°	935	890	807	748	727
32.5°	901	849	762	698	674
35°	864	807	713	647	619
37.5°	826	767	668	595	568
40°	787	721	618	542	516
42.5°	747	680	571	493	468
45°	706	634	523	447	419
47.5°	667	589	474	402	375
50°	621	544	428	355	334
52.5°	579	499	383	313	295
55°	535	455	340	276	257
57.5°	494	409	297	239	221
60°	451	365	255	202	183
62.5°	406	320	218	168	162
65°	364	276	182	148	143
67.5°	319	235	145	130	125
70°	277	195	122	111	108
72.5°	236	157	103	94	91
75°	191	119	84	77	75
77.5°	152	84	67	62	60
80°	115	61	50	47	45
82.5°	79	41	35	33	32
85°	48	23	21	20	20
87.5°	19	9	9	8	8
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	22.00	23.52	22.36	23.83	24.15	17.88	19.41	18.25	19.72	20.03
	3H	23.76	25.13	24.14	25.46	25.82	19.18	20.54	19.56	20.87	21.23
	4H	24.43	25.71	24.83	26.06	26.43	19.68	20.97	20.08	21.31	21.69
	6H	24.92	26.10	25.33	26.47	26.86	20.07	21.25	20.48	21.62	22.01
	8H	25.08	26.21	25.51	26.60	27.00	20.19	21.32	20.62	21.71	22.11
	12H	25.19	26.27	25.62	26.65	27.08	20.27	21.35	20.70	21.73	22.16
4H	2H	22.10	23.38	22.50	23.73	24.11	18.59	19.87	18.99	20.22	20.60
	3H	24.04	25.10	24.45	25.50	25.90	20.06	21.13	20.47	21.53	21.93
	4H	24.78	25.74	25.21	26.15	26.59	20.67	21.63	21.10	22.04	22.48
	6H	25.37	26.21	25.83	26.65	27.11	21.16	21.99	21.62	22.44	22.90
	8H	25.59	26.36	26.05	26.81	27.28	21.32	22.10	21.78	22.54	23.01
	12H	25.75	26.44	26.23	26.92	27.39	21.44	22.13	21.92	22.61	23.08
8H	4H	24.81	25.58	25.27	26.03	26.50	21.03	21.81	21.49	22.25	22.72
	6H	25.44	26.09	25.94	26.58	27.06	21.62	22.27	22.12	22.76	23.23
	8H	25.69	26.27	26.21	26.78	27.27	21.84	22.42	22.36	22.93	23.42
	12H	25.91	26.42	26.42	26.91	27.47	22.03	22.54	22.54	23.03	23.59
12H	4H	24.79	25.49	25.27	25.96	26.44	21.07	21.77	21.56	22.25	22.72
	6H	25.42	26.00	25.94	26.51	27.00	21.69	22.26	22.20	22.77	23.26
	8H	25.71	26.22	26.22	26.71	27.28	21.96	22.47	22.47	22.97	23.53