

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: G3-1802-639-48

Luminaire Tested: S122DRP-H675D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-48
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H675D835-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

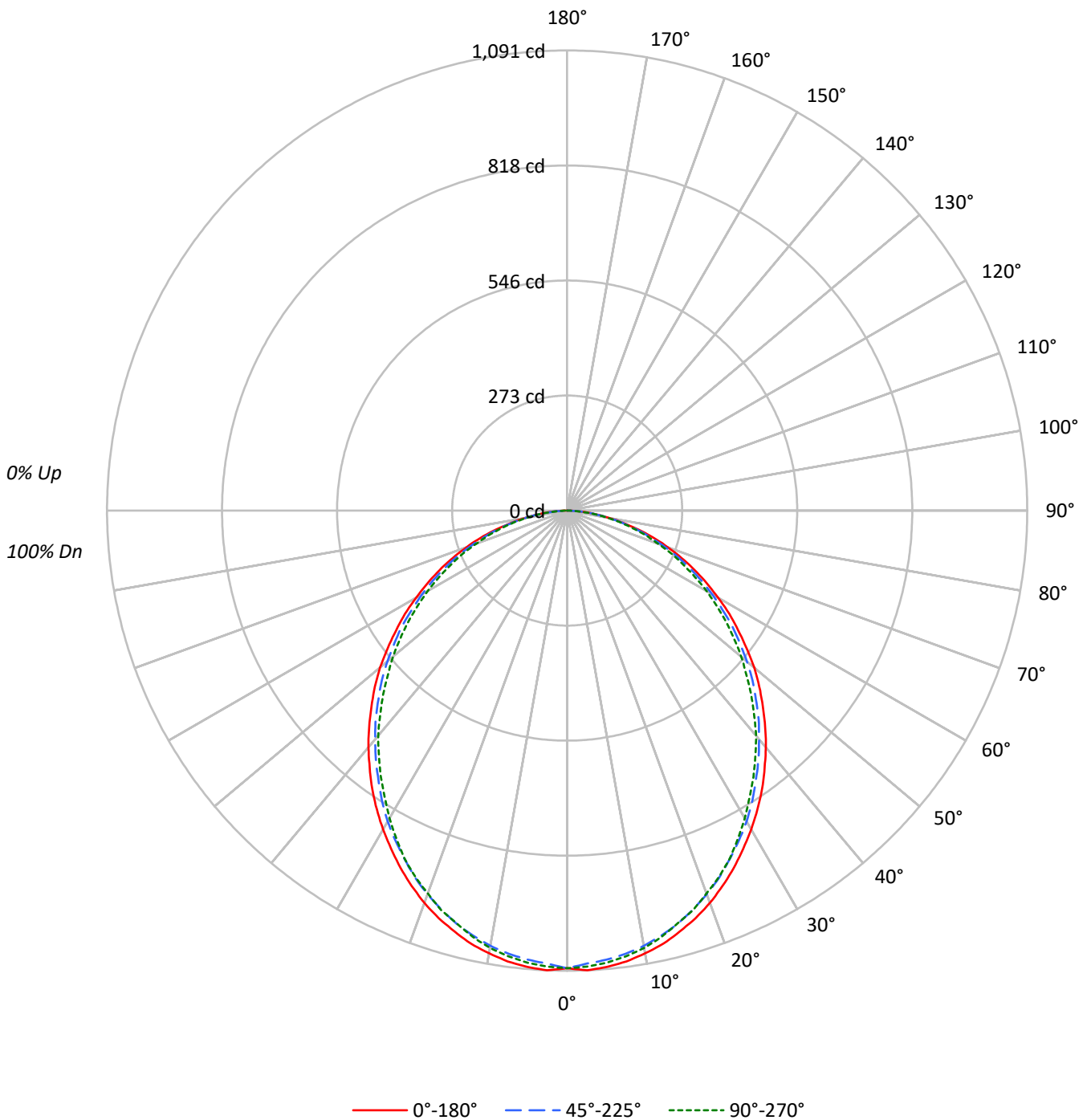
Lumens per Lamp: N/A
Luminaire Lumens: 2760.9 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 25.6
Input Voltage (V): 120
Input Current (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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20667	20667	20667
5°	20765	20440	20574
10°	20618	20270	20367
15°	20370	19996	19976
20°	20067	19622	19581
25°	19651	19167	19146
30°	19201	18717	18519
35°	18742	18137	17905
40°	18226	17604	17331
45°	17671	17051	16620
50°	17157	16476	15972
55°	16438	15874	15276
60°	15733	15124	14552
65°	15054	14332	13701
70°	14146	13422	12753
75°	12879	12364	11775
80°	11189	10859	10421
85°	9616	8523	7868

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17671 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	3.7
10°-20°	287.6	10.4
20°-30°	422.8	15.3
30°-40°	490.9	17.8
40°-50°	490.3	17.8
50°-60°	427.0	15.5
60°-70°	315.8	11.4
70°-80°	178.0	6.4
80°-90°	46.4	1.7
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°	812.5	29.4
0°-40°	1303.4	47.2
0°-60°	2220.7	80.4
0°-90°	2760.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2760.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1085	1085	1085	1085	1085	
5°	1086	1081	1069	1078	1076	103
15°	1033	1028	1014	1018	1013	291
25°	935	927	912	911	911	430
35°	806	797	780	773	770	504
45°	656	649	633	623	617	507
55°	495	491	478	465	460	443
65°	334	329	318	308	304	330
75°	175	174	168	162	160	186
85°	44	42	39	37	36	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1085	1085	1085	1085	1085
2.5°	1091	1086	1075	1084	1082
5°	1086	1081	1069	1078	1076
7.5°	1078	1073	1060	1069	1066
10°	1066	1060	1048	1054	1053
12.5°	1052	1046	1032	1037	1035
15°	1033	1028	1014	1018	1013
17.5°	1013	1005	992	996	993
20°	990	982	968	970	966
22.5°	963	955	942	942	940
25°	935	927	912	911	911
27.5°	904	897	882	879	877
30°	873	867	851	845	842
32.5°	840	832	817	810	805
35°	806	797	780	773	770
37.5°	769	760	745	739	733
40°	733	725	708	699	697
42.5°	695	687	672	662	656
45°	656	649	633	623	617
47.5°	618	610	596	584	576
50°	579	571	556	542	539
52.5°	536	531	516	503	499
55°	495	491	478	465	460
57.5°	456	451	436	426	420
60°	413	410	397	386	382
62.5°	373	369	358	347	342
65°	334	329	318	308	304
67.5°	294	289	280	272	268
70°	254	250	241	234	229
72.5°	215	211	203	196	195
75°	175	174	168	162	160
77.5°	138	137	133	130	128
80°	102	102	99	96	95
82.5°	70	71	68	66	66
85°	44	42	39	37	36
87.5°	18	15	14	11	10
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	21.81	23.42	22.17	23.73	24.05	21.38	22.99	21.74	23.30	23.62
	3H	23.56	25.01	23.94	25.34	25.70	23.08	24.53	23.46	24.86	25.22
	4H	24.21	25.57	24.60	25.92	26.30	23.70	25.07	24.10	25.42	25.80
	6H	24.66	25.93	25.07	26.30	26.69	24.17	25.43	24.58	25.80	26.19
	8H	24.80	26.01	25.23	26.40	26.80	24.31	25.52	24.73	25.91	26.30
	12H	24.89	26.05	25.32	26.44	26.86	24.39	25.55	24.82	25.93	26.36
4H	2H	22.37	23.73	22.76	24.08	24.46	22.03	23.39	22.42	23.74	24.12
	3H	24.34	25.49	24.75	25.88	26.29	23.94	25.09	24.35	25.48	25.88
	4H	25.12	26.16	25.55	26.57	27.01	24.69	25.72	25.12	26.14	26.57
	6H	25.71	26.61	26.16	27.05	27.51	25.27	26.18	25.73	26.62	27.07
	8H	25.89	26.74	26.35	27.18	27.65	25.46	26.30	25.92	26.74	27.21
	12H	26.03	26.79	26.51	27.26	27.73	25.57	26.33	26.05	26.81	27.28
8H	4H	25.39	26.24	25.85	26.68	27.15	25.01	25.86	25.47	26.30	26.76
	6H	26.09	26.80	26.59	27.28	27.76	25.71	26.41	26.20	26.90	27.37
	8H	26.35	26.98	26.86	27.49	27.97	25.96	26.59	26.47	27.09	27.58
	12H	26.55	27.11	27.06	27.60	28.16	26.13	26.69	26.64	27.18	27.74
12H	4H	25.42	26.18	25.90	26.65	27.12	25.04	25.80	25.53	26.28	26.75
	6H	26.14	26.77	26.65	27.27	27.76	25.76	26.39	26.27	26.90	27.39
	8H	26.44	27.00	26.95	27.49	28.05	26.07	26.62	26.57	27.11	27.67