

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: G3-1802-639-26

Luminaire Tested: S124RDRP-S795D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-26
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S795D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

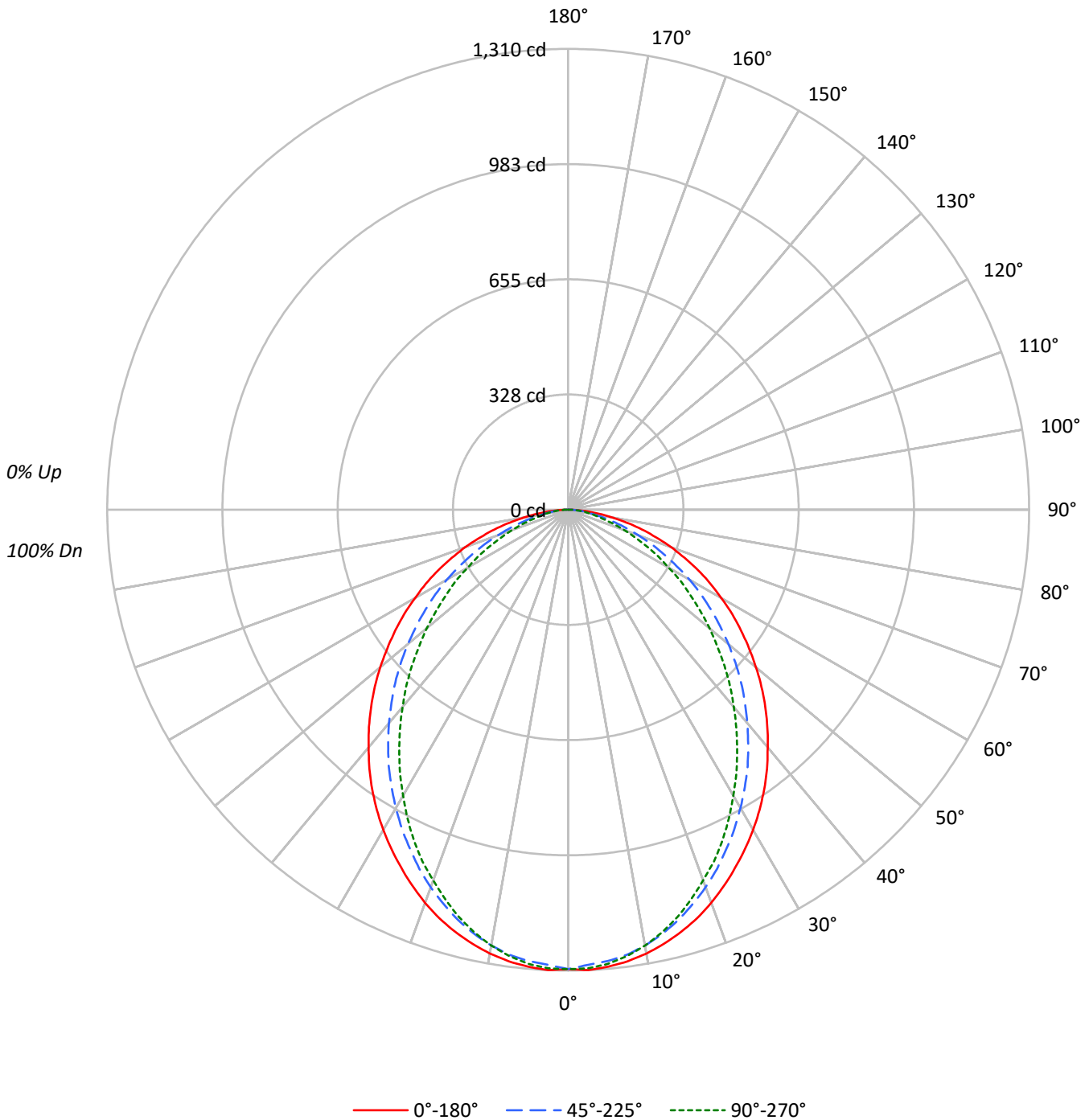
Lumens per Lamp: N/A
Luminaire Lumens: 3017.7 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.92' x H: 0')
CIE Type: Direct

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																												
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54																												
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47																												
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41																												
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37																												
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33																												
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30																												
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11485	11485	11485
5°	11512	11370	11441
10°	11439	11234	11234
15°	11308	10998	10916
20°	11128	10688	10491
25°	10897	10325	10063
30°	10673	9942	9525
35°	10425	9544	8986
40°	10126	9092	8404
45°	9850	8644	7810
50°	9536	8127	7183
55°	9199	7590	6501
60°	8830	7000	5804
65°	8490	6264	5119
70°	7997	5451	4345
75°	7373	4519	3534
80°	6432	3444	3241
85°	5449	3128	2926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9850 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	4.1
10°-20°	342.4	11.3
20°-30°	494.4	16.4
30°-40°	560.3	18.6
40°-50°	541.0	17.9
50°-60°	449.7	14.9
60°-70°	310.4	10.3
70°-80°	156.9	5.2
80°-90°	39.8	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°	959.6	31.8
0°-40°	1519.9	50.4
0°-60°	2510.5	83.2
0°-90°	3017.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3017.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1306	1306	1306	1306	1306	
5°	1304	1300	1288	1298	1296	124
15°	1242	1233	1208	1206	1199	350
25°	1123	1105	1064	1047	1037	517
35°	971	939	889	855	837	607
45°	792	755	695	646	628	611
55°	600	560	495	443	424	537
65°	408	365	301	258	246	403
75°	217	180	133	110	104	229
85°	54	34	31	29	29	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1306	1306	1306	1306	1306
2.5°	1310	1306	1295	1306	1305
5°	1304	1300	1288	1298	1296
7.5°	1295	1291	1276	1283	1280
10°	1281	1276	1258	1262	1258
12.5°	1263	1257	1235	1237	1231
15°	1242	1233	1208	1206	1199
17.5°	1218	1205	1176	1171	1161
20°	1189	1176	1142	1134	1121
22.5°	1157	1142	1105	1092	1082
25°	1123	1105	1064	1047	1037
27.5°	1088	1066	1023	1003	989
30°	1051	1026	979	954	938
32.5°	1012	983	934	904	889
35°	971	939	889	855	837
37.5°	928	895	840	803	785
40°	882	849	792	750	732
42.5°	838	803	743	700	681
45°	792	755	695	646	628
47.5°	745	707	645	594	574
50°	697	658	594	544	525
52.5°	648	610	544	493	473
55°	600	560	495	443	424
57.5°	553	511	447	394	380
60°	502	462	398	346	330
62.5°	456	414	348	301	289
65°	408	365	301	258	246
67.5°	358	317	257	219	205
70°	311	269	212	179	169
72.5°	261	224	171	144	135
75°	217	180	133	110	104
77.5°	171	139	99	83	81
80°	127	98	68	65	64
82.5°	89	63	49	47	46
85°	54	34	31	29	29
87.5°	23	15	14	13	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	19.82	21.39	20.19	21.70	22.02	17.85	19.42	18.22	19.73	20.05
	3H	21.59	23.00	21.97	23.33	23.69	19.11	20.52	19.49	20.84	21.21
	4H	22.26	23.58	22.65	23.93	24.30	19.48	20.81	19.88	21.16	21.53
	6H	22.73	23.96	23.14	24.32	24.71	19.75	20.97	20.16	21.34	21.73
	8H	22.88	24.05	23.31	24.44	24.84	19.84	21.01	20.27	21.40	21.80
	12H	22.98	24.10	23.41	24.48	24.91	19.90	21.02	20.33	21.40	21.83
4H	2H	20.16	21.48	20.56	21.83	22.21	18.55	19.87	18.95	20.22	20.60
	3H	22.13	23.23	22.54	23.63	24.03	19.98	21.09	20.39	21.48	21.89
	4H	22.91	23.90	23.34	24.32	24.75	20.44	21.43	20.87	21.85	22.28
	6H	23.51	24.37	23.96	24.81	25.27	20.79	21.65	21.24	22.09	22.55
	8H	23.70	24.51	24.16	24.95	25.42	20.91	21.72	21.38	22.16	22.63
	12H	23.84	24.56	24.32	25.04	25.51	21.01	21.73	21.49	22.21	22.68
8H	4H	23.00	23.81	23.47	24.26	24.72	20.75	21.56	21.21	22.00	22.47
	6H	23.68	24.34	24.17	24.83	25.31	21.18	21.85	21.68	22.34	22.82
	8H	23.92	24.52	24.43	25.03	25.51	21.36	21.96	21.88	22.47	22.96
	12H	24.11	24.64	24.62	25.14	25.70	21.52	22.05	22.03	22.54	23.10
12H	4H	22.99	23.72	23.48	24.20	24.67	20.79	21.51	21.27	21.99	22.46
	6H	23.66	24.27	24.18	24.77	25.26	21.24	21.84	21.75	22.35	22.83
	8H	23.95	24.48	24.46	24.97	25.53	21.47	22.00	21.97	22.49	23.05