

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: G3-1802-639-23

Luminaire Tested: **S121RDR-S685D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-23
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S685D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2236.4 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

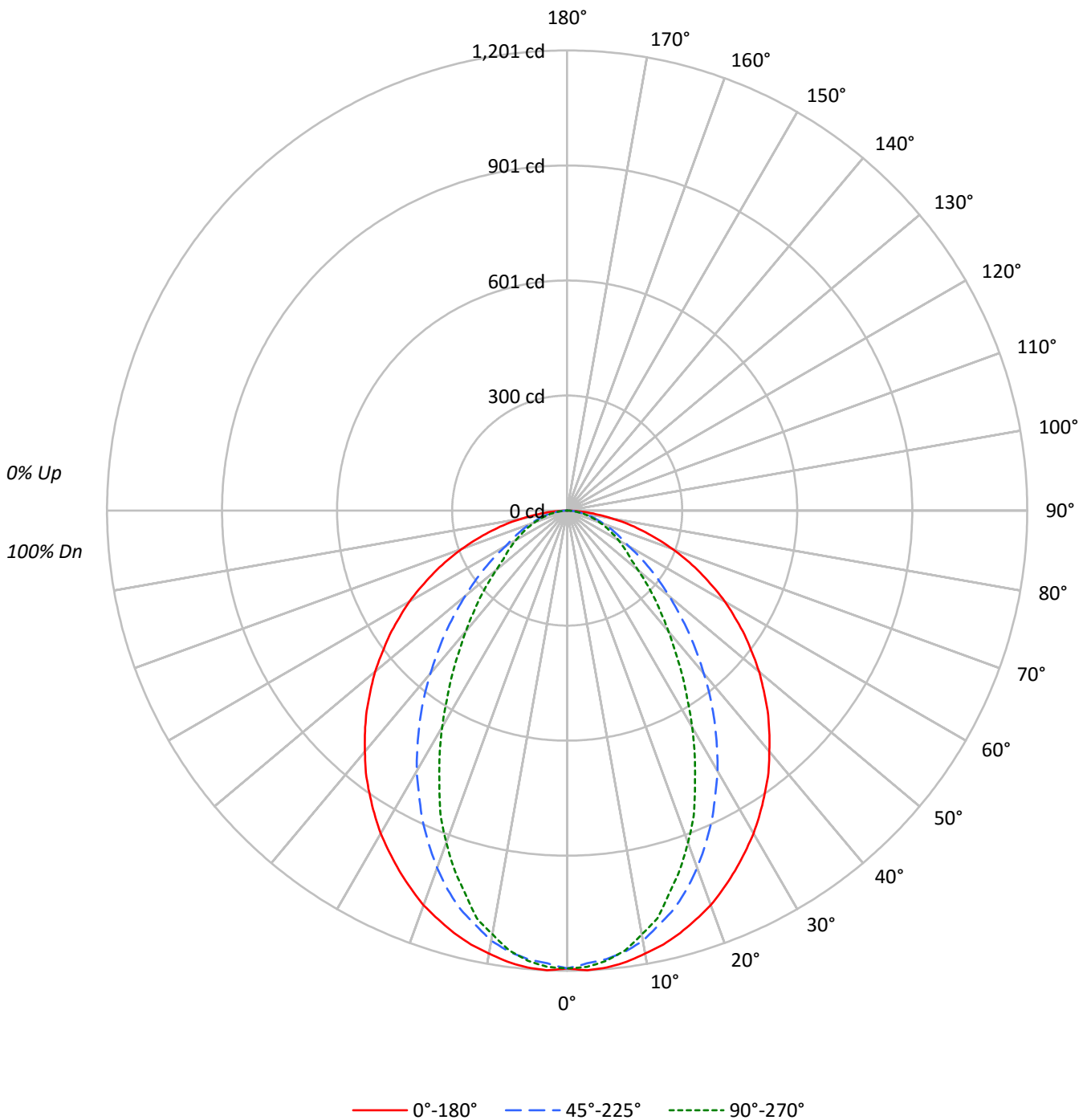
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52					50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42					40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38					37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35					33				
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31528	31528	31528
5°	31701	31118	31224
10°	31451	30541	30085
15°	31165	29417	28188
20°	30771	27852	25886
25°	30187	25996	22968
30°	29642	23915	19893
35°	28987	21579	16845
40°	28276	19114	14189
45°	27610	16678	11977
50°	26843	14284	9892
55°	25988	12051	8831
60°	25117	9762	8179
65°	23910	8802	7554
70°	22524	7945	6942
75°	20693	7237	6422
80°	18080	6381	5773
85°	14833	5449	4843



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	5.0
10°-20°	304.2	13.6
20°-30°	415.3	18.6
30°-40°	431.7	19.3
40°-50°	377.1	16.9
50°-60°	285.1	12.7
60°-70°	188.3	8.4
70°-80°	97.1	4.3
80°-90°	25.8	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°	831.4	37.2
0°-40°	1263.1	56.5
0°-60°	1925.3	86.1
0°-90°	2236.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2236.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1195	1195	1195	1195	1195	
5°	1197	1190	1175	1184	1179	114
15°	1141	1124	1077	1049	1032	322
25°	1037	996	893	819	789	478
35°	900	820	670	560	523	563
45°	740	629	447	347	321	570
55°	565	429	262	199	192	505
65°	383	239	141	124	121	379
75°	203	94	71	65	63	216
85°	49	20	18	17	16	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1195	1195	1195	1195	1195
2.5°	1201	1195	1183	1194	1192
5°	1197	1190	1175	1184	1179
7.5°	1188	1180	1161	1164	1158
10°	1174	1165	1140	1135	1123
12.5°	1160	1146	1107	1097	1090
15°	1141	1124	1077	1049	1032
17.5°	1119	1096	1037	999	981
20°	1096	1066	992	940	922
22.5°	1067	1032	943	881	863
25°	1037	996	893	819	789
27.5°	1005	955	837	754	721
30°	973	912	785	685	653
32.5°	937	869	727	622	584
35°	900	820	670	560	523
37.5°	863	775	613	502	463
40°	821	728	555	441	412
42.5°	781	679	500	394	363
45°	740	629	447	347	321
47.5°	696	580	395	306	280
50°	654	528	348	266	241
52.5°	608	479	304	225	211
55°	565	429	262	199	192
57.5°	519	381	223	180	172
60°	476	333	185	160	155
62.5°	428	287	161	142	137
65°	383	239	141	124	121
67.5°	338	198	122	108	105
70°	292	157	103	93	90
72.5°	247	120	86	78	76
75°	203	94	71	65	63
77.5°	164	72	56	51	50
80°	119	53	42	39	38
82.5°	81	36	30	28	26
85°	49	20	18	17	16
87.5°	20	9	8	7	7
90°	0	0	0	0	0

(END OF REPORT)